



# igus<sup>®</sup> solutions for simple applications

e-rib, E1, snapchain, office e-chain<sup>®</sup>





**igus<sup>®</sup>**

**e-rib**

**Reinforcement for  
existing corrugated  
tube systems**

# Reinforcement for existing corrugated tube systems - e-rib

Corrugated tubes are used in many applications where the mechanical demands on the energy supply are low. The key advantages are easy, versatile and exceptionally cost-effective guidance of energy, data and media. However, fast movements can lead to damaging sideways movement. The igus® e-rib is easy to clip onto a corrugated hose and can help prevent this. The e-rib fills the joints of the corrugated hose to stabilize it in such a way that it can only move in one direction. The corrugated hose has an unsupported length due to the lateral guide elements. When retrofitted, the e-rib enables an upgrade of existing applications with just a few simple steps. The e-rib is independent of the hose manufacturer (depending on size) and available in four sizes.

- Stability prevents unintentional sideways movement
- Less installation space required
- Easy to retrofit
- No change in the impermeability of the corrugated hose

## Typical industries and applications

- Fast, short and unsupported applications
- Standing or hanging applications
- Automotive industry
- Machine and plant construction
- Pick & Place applications
- Plotter
- Handling systems
- Medical technology
- SCARA robots





The igus® e-rib corrugated tube reinforcement can be easily retrofitted onto existing systems



Tests from the igus® laboratory: The igus® e-rib (pictured on the right) stabilizes the corrugated hose significantly in sideways movement during acceleration or deceleration

# e-chain system® e-rib

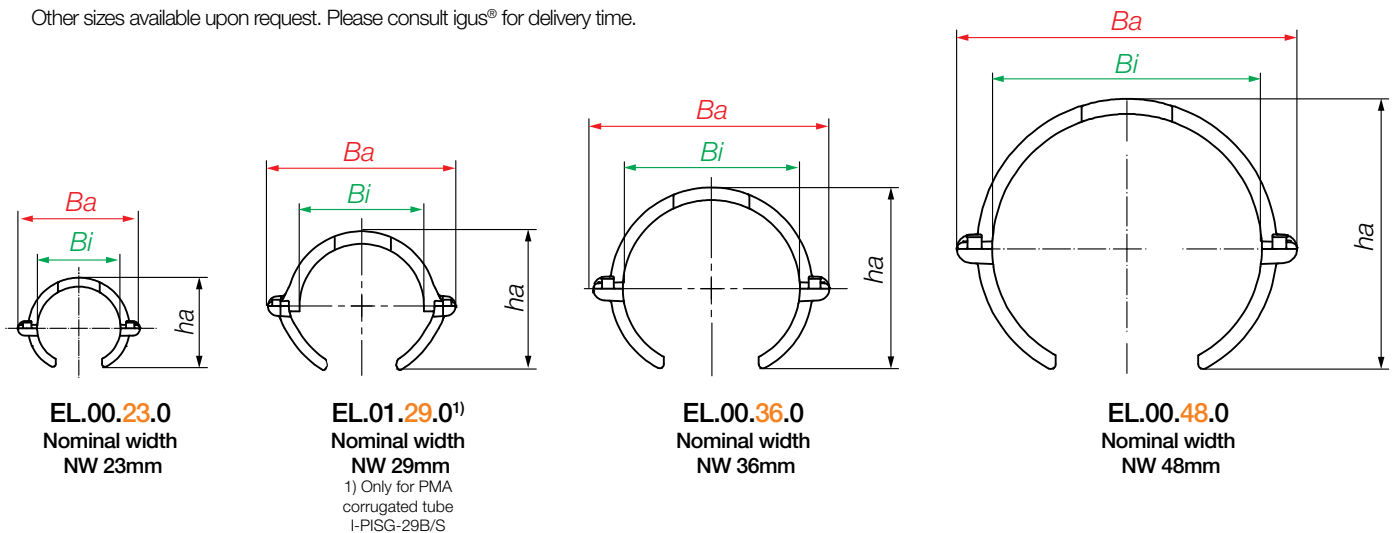
## Product Range



**e-rib -**  
reinforcement for existing  
corrugated tube systems

Series	Nominal width NW (mm)	Inner width <i>Bi</i> (mm)	Outer width <i>Ba</i> (mm)	Outer height <i>ha</i> (mm)	Mounting bracket
EL.00.23.0	.91 (23)	1.10 (28)	1.61 (41)	1.18 (30)	EL.00.12
EL.01.29.0 <sup>1)</sup>	1.14 (29)	1.06 (27)	1.75 (44.5)	1.38 (35)	EL.01.12
EL.00.36.0	1.42 (36)	1.65 (42)	2.20 (56)	1.69 (43)	EL.00.12
EL.00.48.0	1.89 (48)	2.13 (54)	2.66 (68)	2.13 (54)	EL.00.12

1) EL-01-29-0 only for PMA corrugated tube I-PISG-29B/S  
Other sizes available upon request. Please consult igus® for delivery time.



**Available from stock. Orders ship as early as today.\***

\*On average 90% of orders ship the same day..

## e-chain system® e-rib Assembly instructions



igus® delivers the required length. Any excess length can easily be cut off.



To attach the e-rib to the hose fitting, there must be no connection point on the last 7 ribs of the e-rib, otherwise the mounting bracket will not lock securely.



If necessary, cut off thicker end section and any excess length and place the two mounting brackets on the side plates.



Finally, the mounting brackets are fixed with two cable tiewraps.

### Price Index



Series e-rib

### Special Features / Options

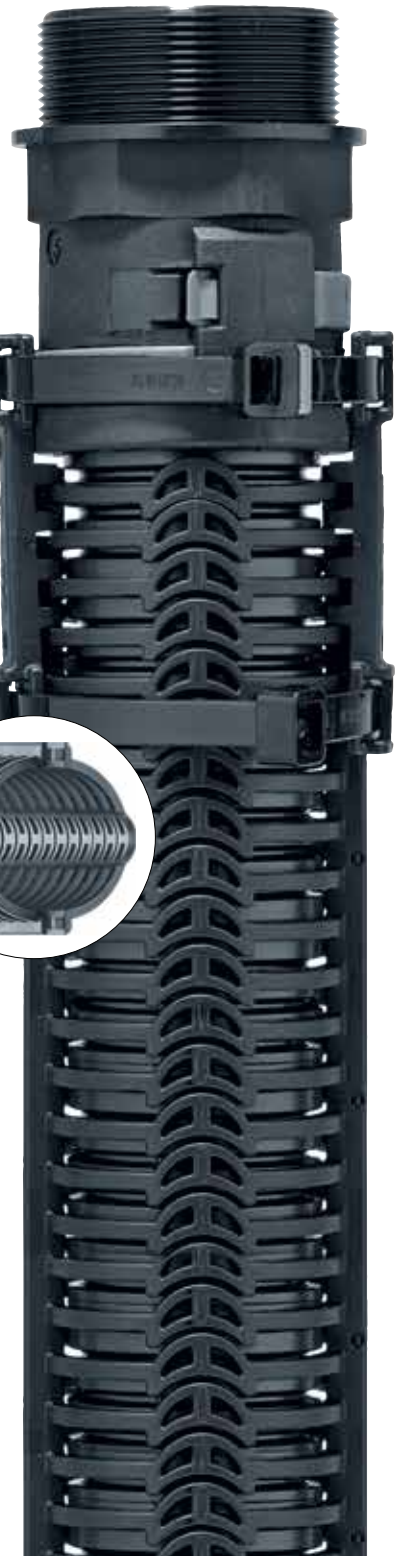
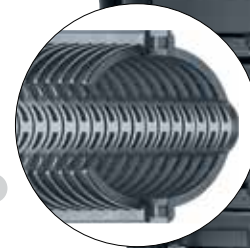


Flammability Class  
VDE 0304 IIC UL94 V2

### Features & Benefits

- 1 Mounting bracket: connector elements for secure fixing
- 2 Additional security: retention clips for greater dynamic responsiveness
- 3 Independent of hose manufacturer:  
4 sizes for nominal hose widths  
NW23, NW29\*, NW36 and NW48 available  
\*NW29 only for PMA corrugated tubes
- 4 Space-saving: less installation space required
- 5 Strong: prevents unintentional sideways movement

- 6 Easy to retrofit: simply clip onto a corrugated hose



### Usage Guidelines



- When low-cost corrugated tubes are used to protect and carry cables but stability must be increased
- To stabilize corrugated tubes used in highly dynamic applications
- Longer service life for cables in corrugated tubes
- 4 sizes for nominal hose widths NW23, NW29\*, NW36 and NW48 available  
\*NW29 for PMA corrugated tubes



- When a fully enclosed, yet still openable corrugated tube is needed  
➤ e-skin®, Chapter 6

### Order Example: Complete E-Chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **EL.00.36.0**



e-rib

1 Set **EL.00.12**



Mounting Bracket

**EL.00.S** (Option: with 2 securing clips)

Securing Clips

**MAT0170899** (Option: 1 cable tiewrap for securing clips)

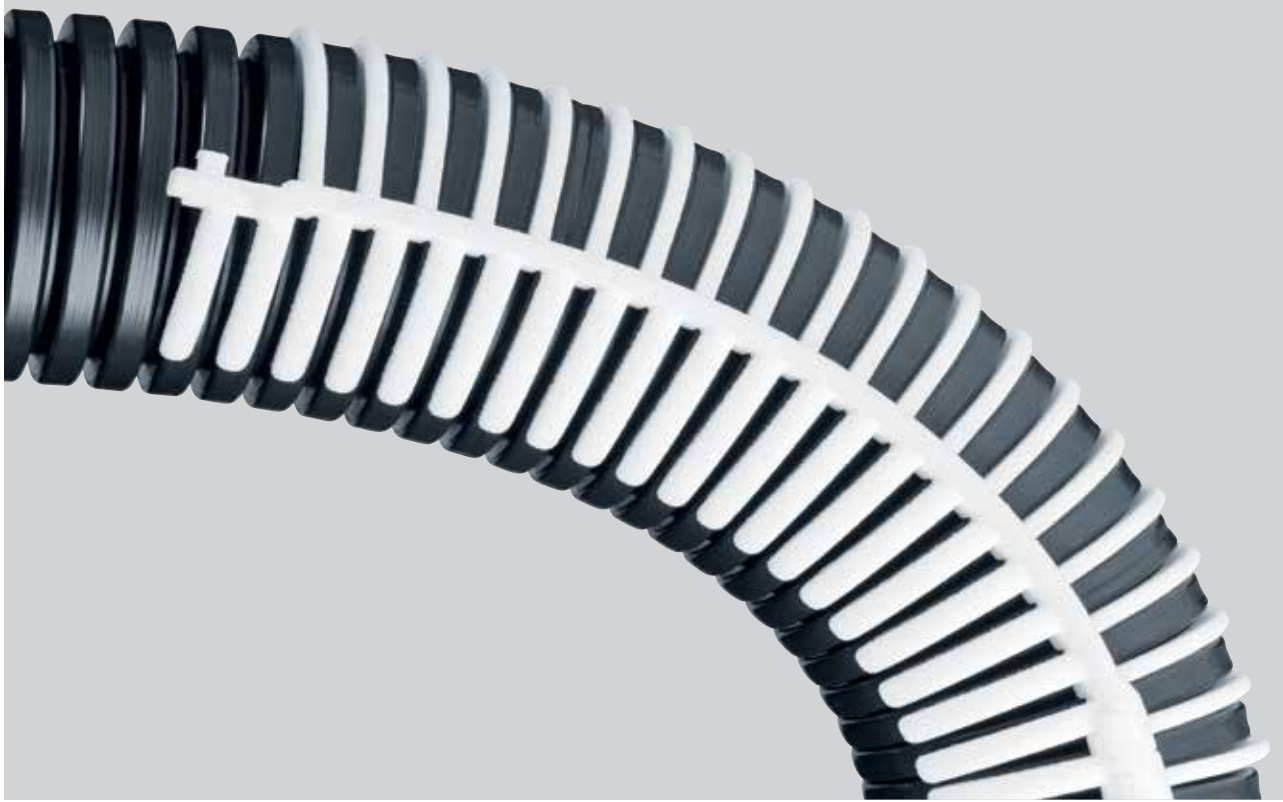
Cable tiewrap



# e-chain system® e-rib Reinforcement for existing corrugated tube systems



e-rib



The e-rib is clipped onto the corrugated tube and stabilizes it in such a way that it can only move in one direction



More information ► [www.igus.com/e-rib](http://www.igus.com/e-rib)



PDF: [www.igus.com/E-Chain-pdfs](http://www.igus.com/E-Chain-pdfs)  
Specs/CAD/RFG: [www.igus.com/E-Chains](http://www.igus.com/E-Chains)  
RoHS info: [www.igus.com/RoHS](http://www.igus.com/RoHS)



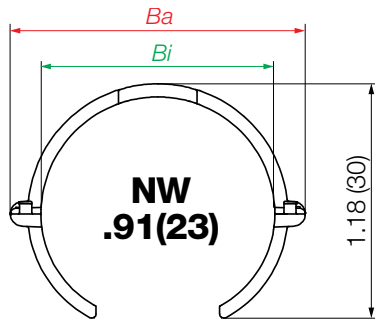
Material (E-Chain®) - permitted temperature	igumid NB / 41°F (+5°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid NB / 41°F (+5°C) up to +176°F (+80° C)
Flammability Class (E-Chain®), igumid NB	VDE 0304 IIC UL94 V2

## Technical Data



Details of material properties

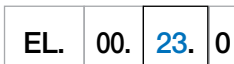
► Chapter 1



Series EL.00.23 | e-rib for corrugated tubes from different manufacturers

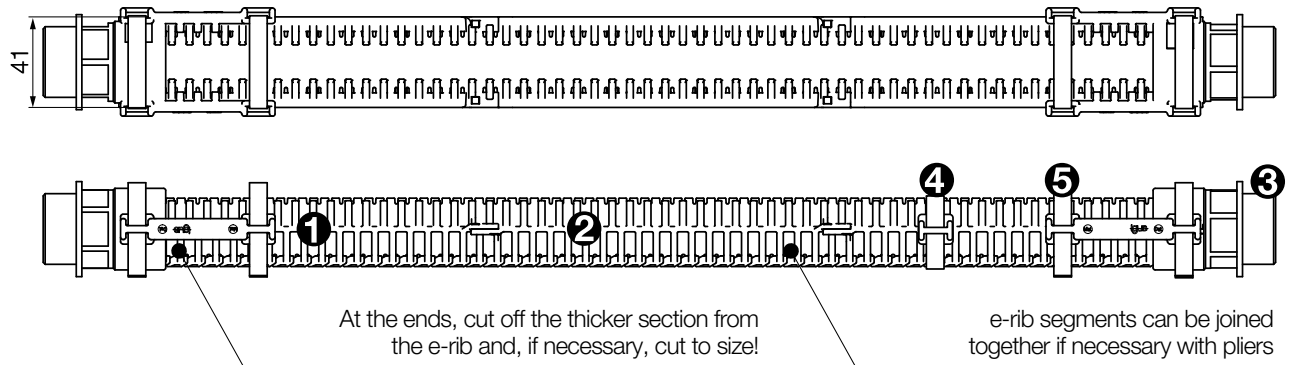
Part No.	NW	Bi	Ba	ha	Segments	Segment length	Weight	Mounting
e-rib	in. (mm)	in. (mm)	in. (mm)	in. (mm)	per ft. (meter)	in. (mm)	lbs/ft. (kg/m)	bracket
EL.00.23.0	.91 (23)	1.10 (28)	1.61 (41)	1.18 (30)	23 (7)	5.79 (147)	≈ (0.16)	EL.00.12

Part Number Structure



- Color - Black
- Nominal Width (NW)
- 00 for all manufacturers, 01 only for PMA
- Series e-rib

Installation dimensions and product description



Position	Description	Part No.
①	PMA corrugated tube	I-PISG-23B
②	e-rib	EL.00.23
③	PMA connection fitting	I-BVND-M323GT
④	Securing clip, optional*	EL.00.S
⑤	Mounting bracket connection set	EL.00.12

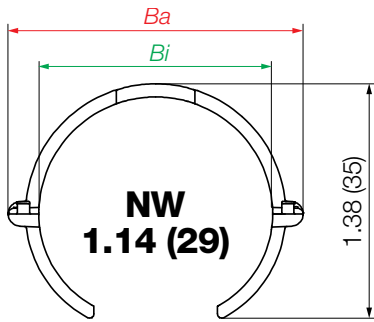
Note: For each locking device, 2 clips EL.00.S and a cable tiewrap MAT0170899 are needed!

\*Securing clips for additional attachment. They can be placed anywhere on the e-rib and fixed to the corrugated tube with a cable tiewrap.

e-chain system® e-rib  
 Series EL.01.29  
 Installation Dimensions



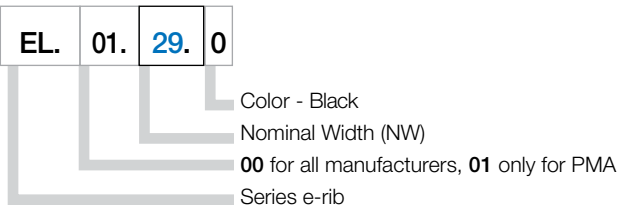
e-rib  
 EL.01.29



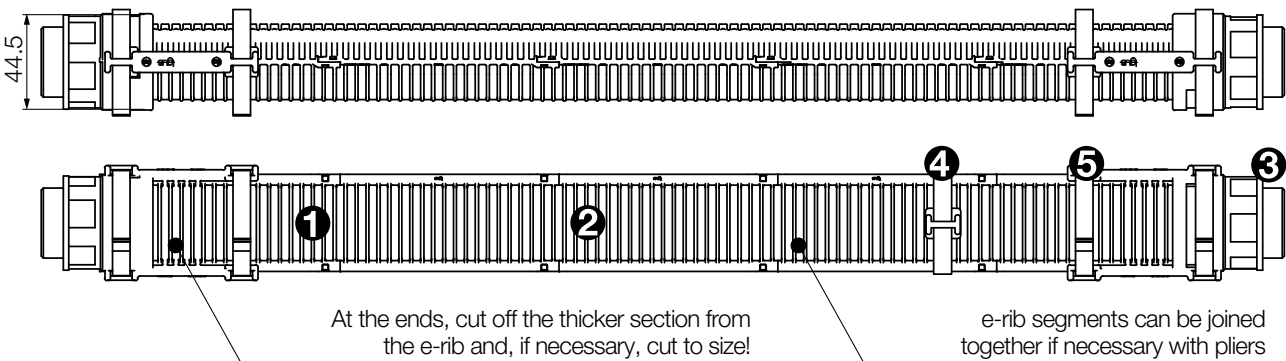
Series EL.01.29 | e-rib only for PMA corrugated tube I-PISG-29B/S

Part No.	NW	Bi	Ba	ha	Segments	Segment length	Weight	Mounting
e-rib	in. (mm)	in. (mm)	in. (mm)	in. (mm)	per ft. (meter)	in. (mm)	lbs/ft. (kg/m)	bracket
EL.01.29.0	1.14 (29)	1.06 (27)	1.75 (44.5)	1.38 (35)	32.8 (10)	3.94 (100)	≈ (0.12)	EL.01.12

Part Number Structure



Installation dimensions and product description



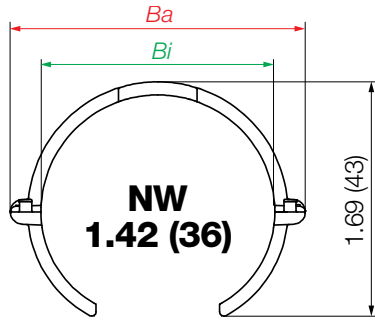
Position	Description	Part No.
①	PMA corrugated tube	I-PISG-29B
②	e-rib	EL.01.29
③	PMA connection fitting	I-BVND-M299GT
④	Securing clip, optional*	EL.01.S
⑤	Mounting bracket connection set	EL.01.12

Note: For each locking device, 2 clips EL-01-S and one cable tiewrap MAT0170899 are needed!

\*Securing clips for additional attachment. They can be placed anywhere on the e-rib and fixed to the corrugated tube with a cable tiewrap.

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)

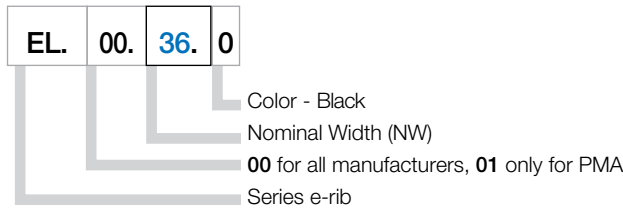




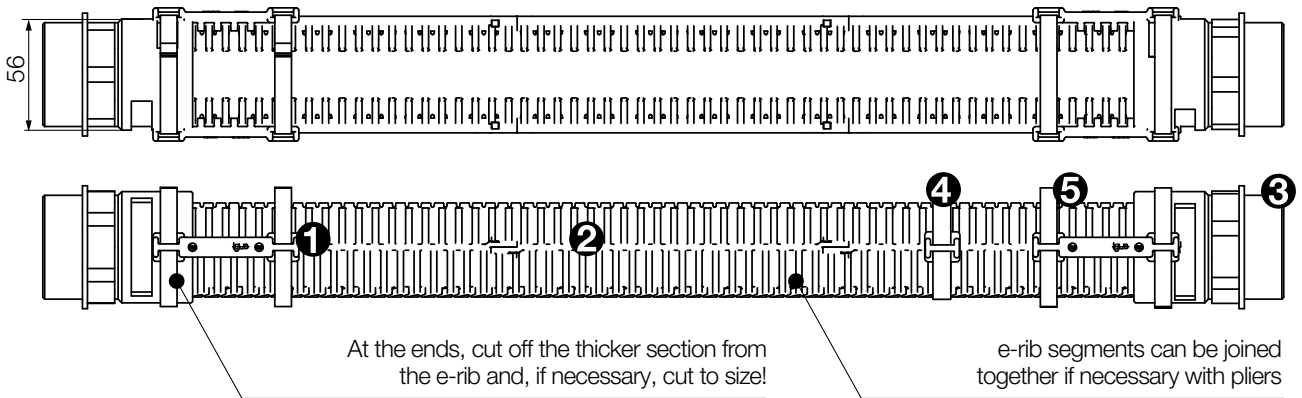
Series EL.00.36 | e-rib for corrugated tubes from different manufacturers

Part No.	NW	Bi	Ba	ha	Segments	Segment length	Weight	Mounting
e-rib	in. (mm)	in. (mm)	in. (mm)	in. (mm)	per ft. (meter)	in. (mm)	lbs/ft. (kg/m)	bracket
EL-00.36.0	1.42 (36)	1.65 (42)	2.20 (56)	1.69 (43)	23 (7)	5.79 (147)	≈ (0.22)	EL.00.12

Part Number Structure



Installation dimensions and product description



Position	Description	Part No.
①	PMA corrugated tube	I-PISG-36B
②	e-rib	EL.00.36
③	PMA connection fitting	I-BVND-M506GT
④	Securing clip, optional*	EL.00.S
⑤	Mounting bracket connection set	EL.00.12

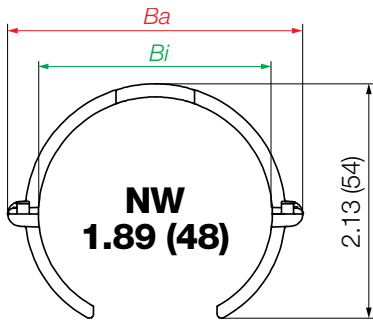
Note: For each locking device, 2 clips EL-00-S and a cable tiewrap MAT0170899 are needed!

\*Securing clips for additional attachment. They can be placed anywhere on the e-rib and fixed to the corrugated tube with a cable tiewrap.

e-chain system® E-Z chain  
 Series EL.00.48  
 Installation Dimensions



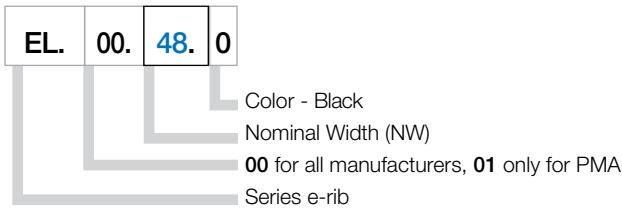
e-rib  
 EL.00.48



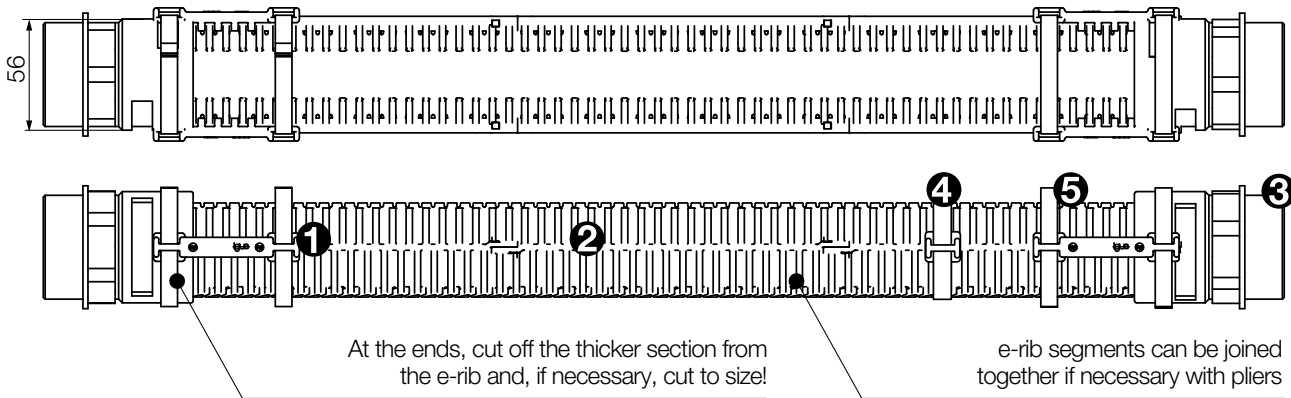
Series EL.00.48 | e-rib for corrugated tubes from different manufacturers

Part No.	NW	Bi	Ba	ha	Segments	Segment length	Weight	Mounting
e-rib	in. (mm)	in. (mm)	in. (mm)	in. (mm)	per ft. (meter)	in. (mm)	lbs/ft. (kg/m)	bracket
EL.00.48.0	1.89 (48)	2.13 (54)	2.68 (68)	2.13 (54)	23 (7)	5.79 (147)	≈ (0.27)	EL.00.12

Part Number Structure



Installation dimensions and product description



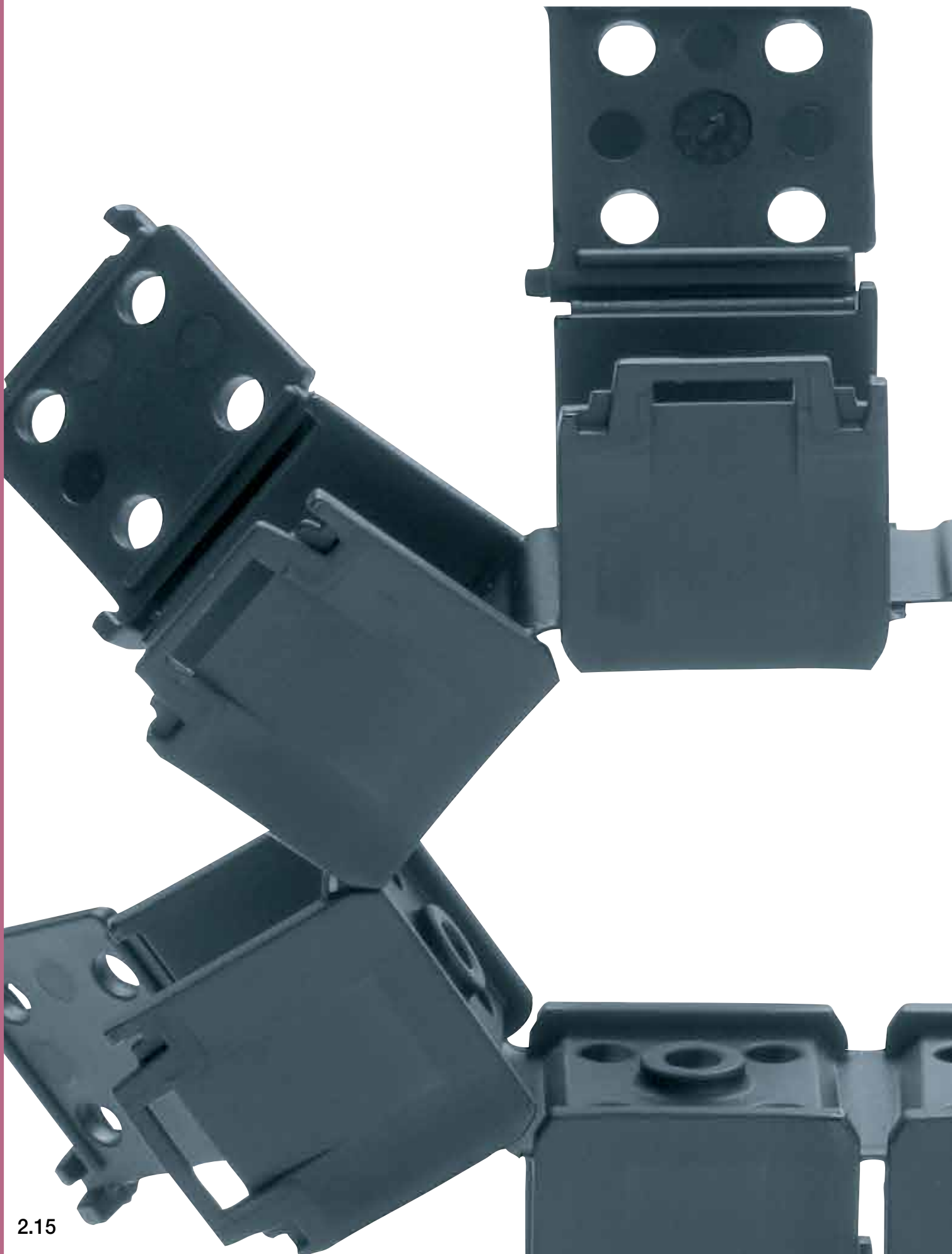
Position	Description	Part No.
①	PMA corrugated tube	I-PISG-48B
②	e-rib	EL.00.48
③	PMA connection fitting	I-BVND-M508GT
④	Securing clip, optional*	EL.00.S
⑤	Mounting bracket connection set	EL.00.12

Note: For each locking device, 2 clips EL-00-S and a cable tiewrap MAT0170899 are needed!

\*Securing clips for additional attachment. They can be placed anywhere on the e-rib and fixed to the corrugated tube with a cable tiewrap.

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)





igus<sup>®</sup>

# System E-1

e-chain<sup>®</sup> Band, Modular



# E1- Modular, one-piece strip design for simple applications

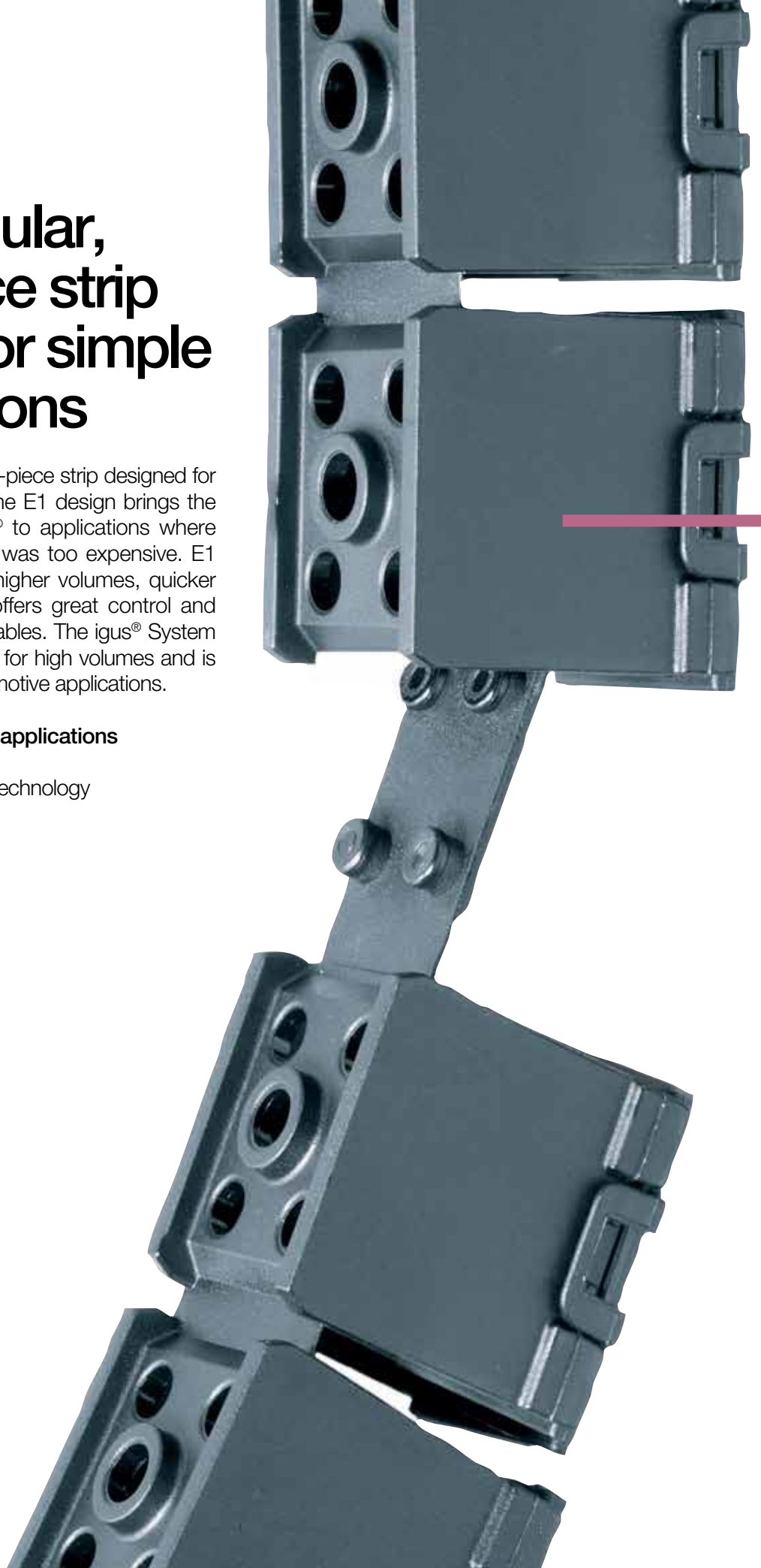
E1: e-chain® modular, 1-piece strip designed for simple applications - The E1 design brings the benefits of an e-chain® to applications where this solution previously was too expensive. E1 is more economic for higher volumes, quicker to assemble and still offers great control and protection for moving cables. The igus® System E1 is very cost effective for high volumes and is especially ideal for automotive applications.

## Typical industries and applications

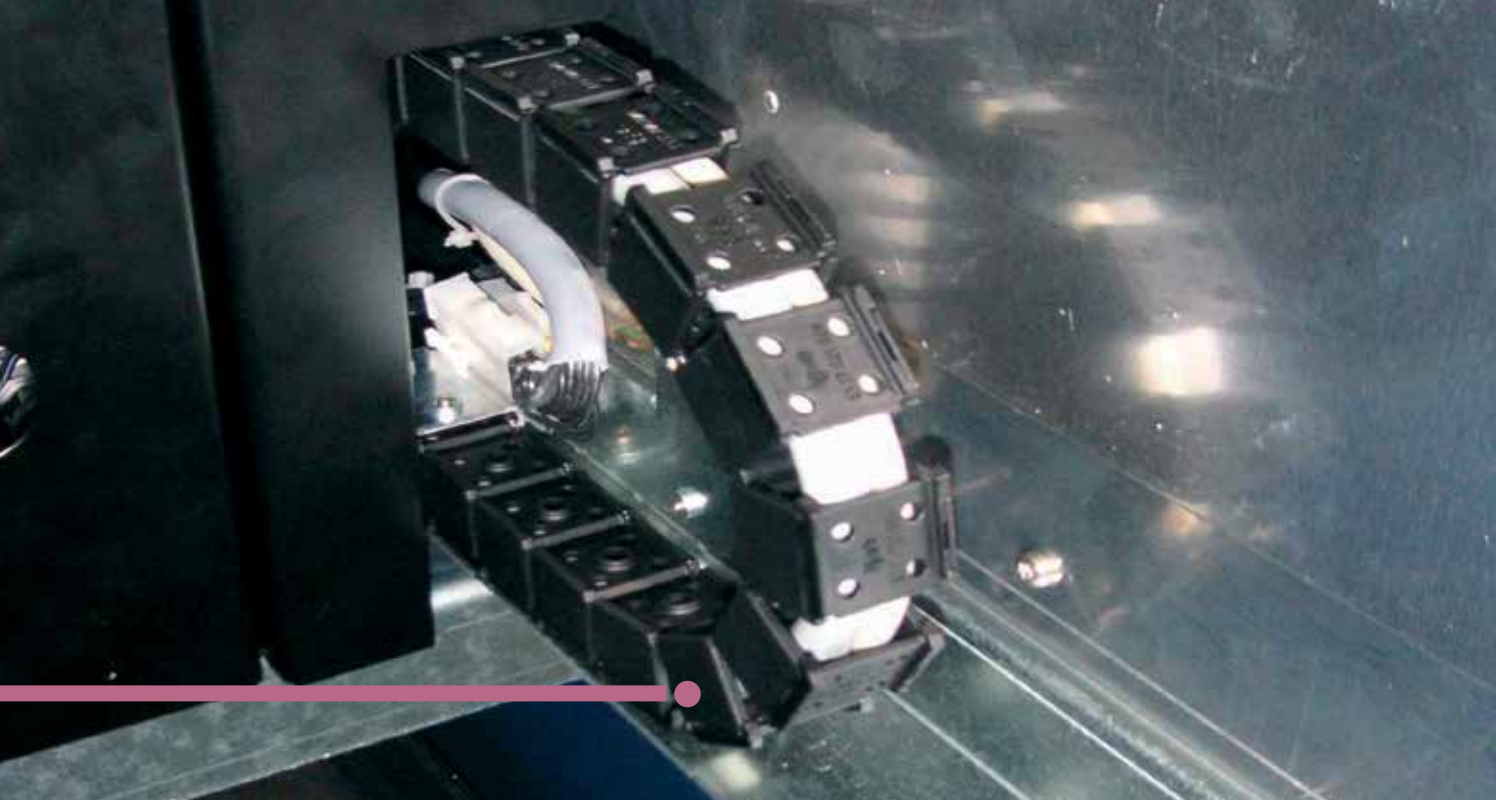
- Automotive
- Office Solutions and technology
- Automation
- Electric equipment
- Machine-building



UL94-V2  
classifications







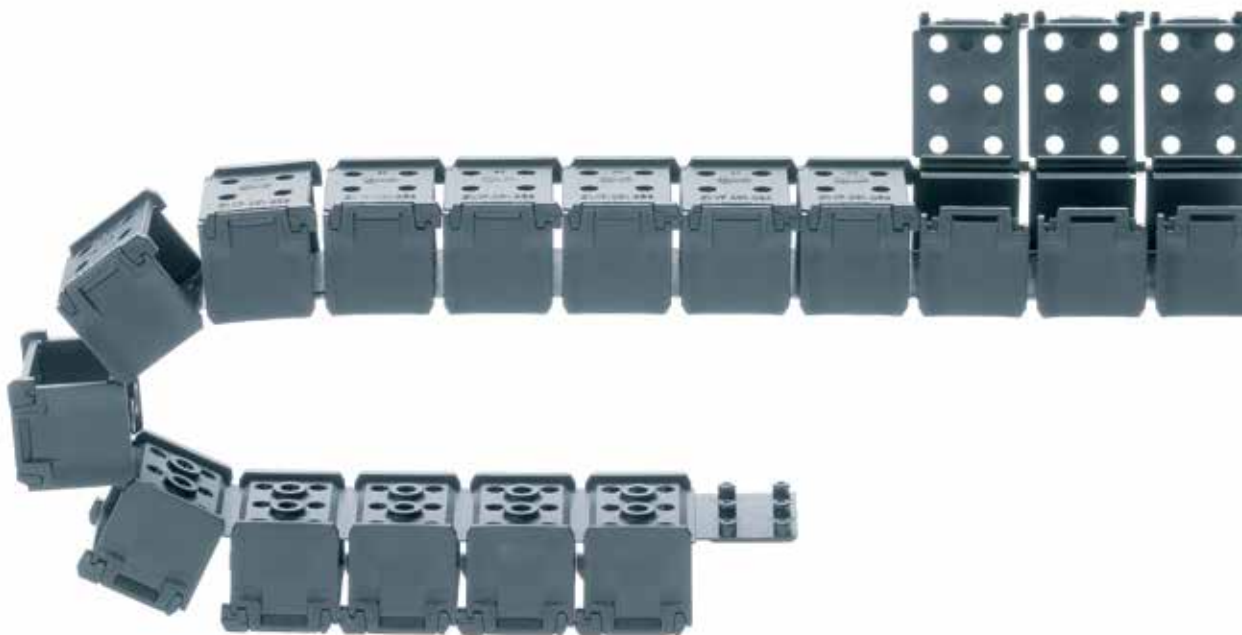
Harnessed igus® System E1 in a bottle deposit machine



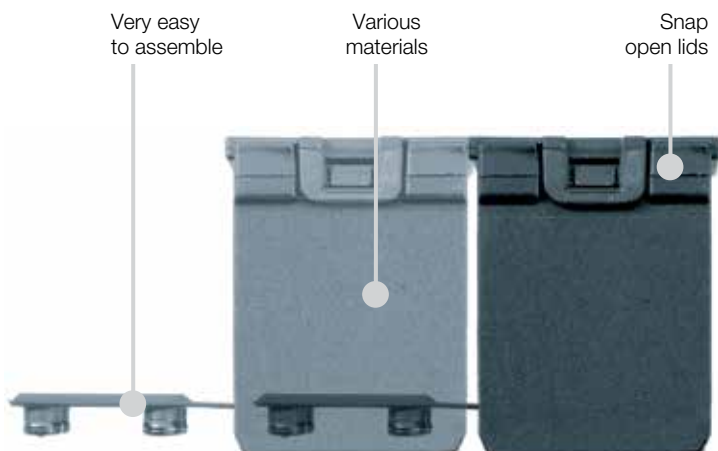
Series E1-17-021-028 in an electric wheelchair - cable supply on the scissor lifting system



The igus®-System E1 is very cost-effective at high quantities and ideal for automotive applications



# e-chain system® System E1



## Modular, 1-piece strip design for simple applications

- Economic solution for high volumes
- A universal and easily adaptable e-chain® concept
- E1: e-chain® on one strip
- Easy shortening/lengthening through modular strip design
- Easy to snap open
- Strip connectors
- Easy attachment at each end
- Various materials available
- You can find more technical data about the material, chemical resistance, temperatures

► Design, Chapter 1

Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>		Segment length  mm
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	
E1-10-013-	.39	10	.51	13	.65	16.5	.61	15.5	.71	18	200
E1-17-021-	.67	17	.83	21	1.02	26	.98	25	1.10	28	255
E1-17-031-	.67	17	1.22	31	1.42	36	.98	25	1.10	28	204
E1-17-044-	.67	17	1.73	44	1.93	49	.98	25	1.10	28	255
E1-18-015-	.71	18	.59	15	.79	20	1.02	26	1.10	28	127.5
E1-20-015-	.79	20	.59	15	.87	22	1.06	27	1.10	28	250



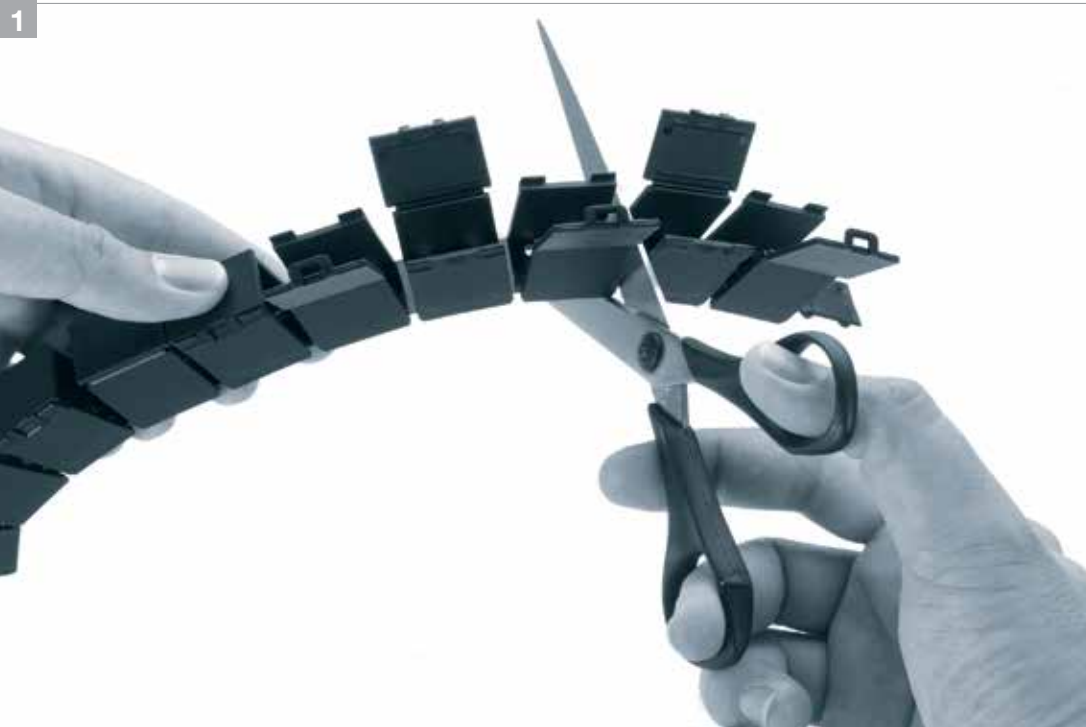
System E1 - e-chain® - snap-open along outer radius



Available from stock. Orders ship as early as today.\*

\*On average 90% of orders ship the same day..

Shortening



System E1 - e-chain on a strip - easy to shorten ...

Lengthening



... and to lengthen


**Price Index**

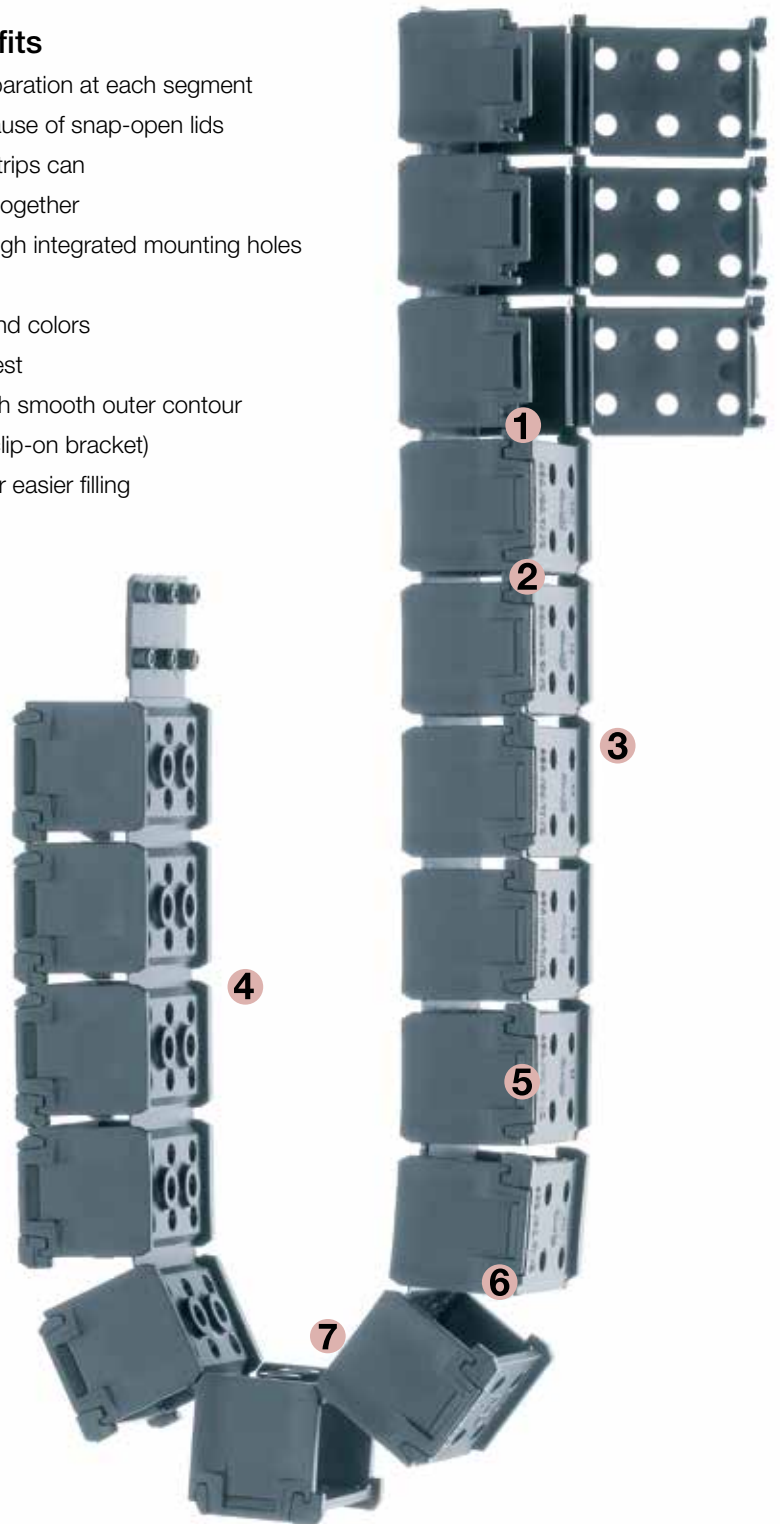

Series E1

**Special Features / Options**

 Flammability Class  
 VDE 0304 IIC UL94 V2

**Features & Benefits**

- 1 Easy to shorten - separation at each segment
- 2 Very easy to fill because of snap-open lids
- 3 Easy to lengthen - strips can simply be snapped together
- 4 Easy fastening through integrated mounting holes
- 5 Low-price e-chain®
- 6 Different materials and colors available upon request
- 7 Compact design with smooth outer contour
- 8 Strain relief option (clip-on bracket)
- 9 All lids snap open for easier filling


**Usage Guidelines**


- If simple filling is required
- If an economical e-chain® is required
- If low assembly cost is required
- For lower duty or cycle life



- High load or high cycle applications
  - Series E-Z chain
  - Series Zipper

**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

 3.28 ft (1 m) **E1-17-021-028-0** = 4 x 10.04" (255 mm) band

**e-chain®**

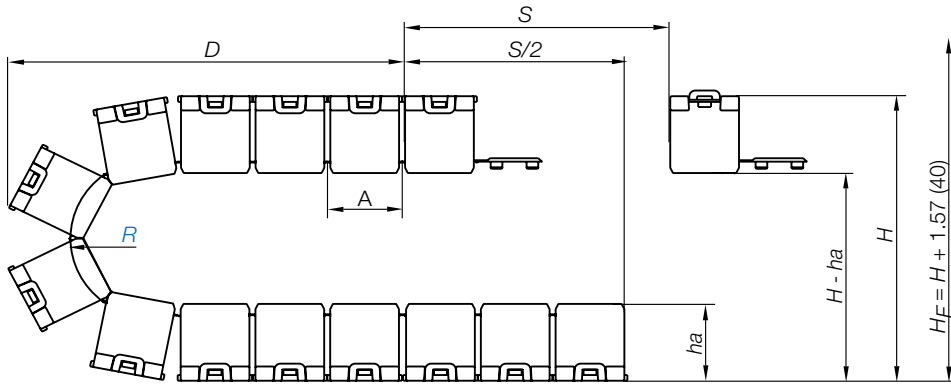
# e-chain system® E1

## Series E1-10, E1-17, E1-18, E1-20

### Installation Dimensions



E1



The required clearance height:  $H_F = H + 1.57$  in. (40 mm)

Bending Radius for Series	E1-10	E1-17	E1-18	E1-20
R	.71 (018)	1.10 (028)	1.10 (028)	1.10 (028)
H	2.44 (62)	3.62 (92)	3.62 (92)	3.62 (92)
D	2.60 (66)	2.99 (76)	2.99 (76)	2.99 (76)
K	3.94 (100)	4.72 (120)	4.72 (120)	4.72 (120)

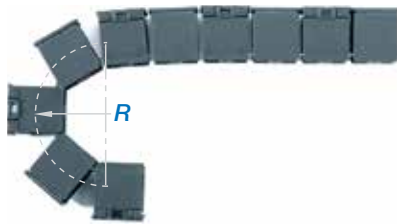
#### Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

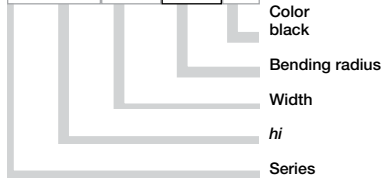
#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F = \text{Required clearance height}$



#### Part No. structure

E1-17-021-028-0



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Material (e-chain®) - permitted temperature °F

application oriented, upon request

Flammability Class (e-chain®), igumid NB

VDE 0304 IIC UL94 V2

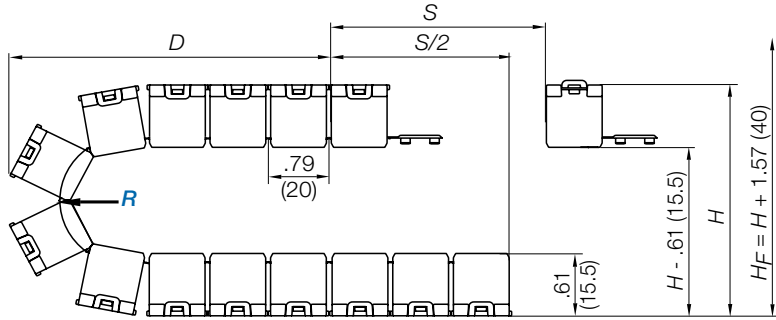
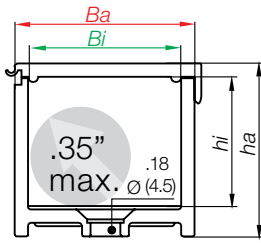
#### Technical Data



Details of material properties

► Chapter 1

Series E1-10 - Snap-open along the outer radius



Pitch per link = .79" (20 mm)  
Chain length =  $\frac{S}{2} + K$

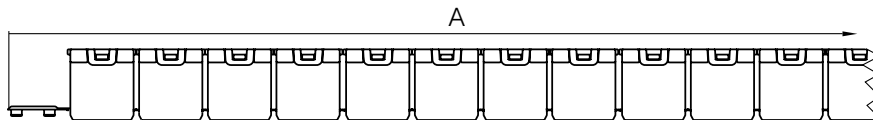
Supplement part number with required radius. Example: E1-10-013-**018**-0  
Pitch: .79 in. (20 mm) per link

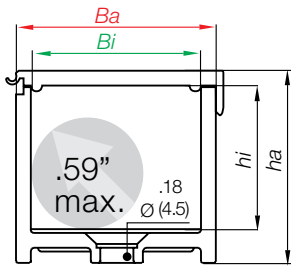
Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/segment (kg/segment)
E1-10-013- <input type="text"/> -0	.20 (13)	.34 (16.5)	≈ 0.0362 (0.0164)
Choose from the radii below for the above size			
Radius (mm) Example: E1-10-013- <b>018</b> -0			

<b>018</b>	<b>.71 (018)</b>
R	.71 (018)
H	2.44 (62)
D	2.60 (66)
K	3.94 (100)

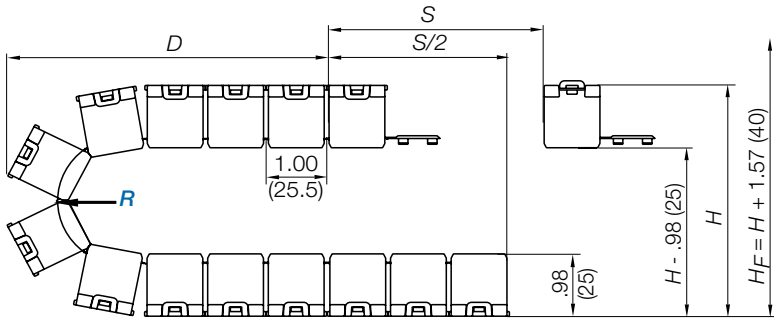
0=Standard color black. For other colors see Chapter 1

Part Number	Segment Length Dimension A mm	No. of links/segment	No. of segments/m
E1-10-013-018-0	200	10	5 (1000 mm)





Series E1-17 - Snap-open along the outer radius



Pitch per link = 1.00" (25.5 mm)  
Chain length =  $\frac{S}{2} + K$

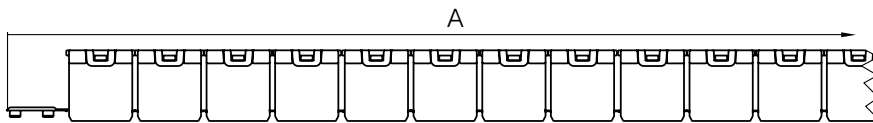
Supplement part number with required radius. Example: E1-17-021-**028**-0  
Pitch: 1.00 in. (25.5 mm) per link

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/segment (kg/segment)
E1-17-021- <input type="text"/> -0	.83 (21)	1.02 (26)	≈ 0.1054 (0.0478)
E1-17-031- <input type="text"/> -0	1.22 (31)	1.42 (36)	≈ 0.1014 (0.0460)
E1-17-044- <input type="text"/> -0	1.73 (44)	1.93 (49)	≈ 0.1532 (0.0695)

Choose from the radii below for the above size  
Radius (mm) Example: E1-17-021-**028**-0

R	1.10 (028)	0=Standard color black. For other colors see Chapter 1
H	3.62 (92)	
D	2.99 (76)	
K	4.72 (120)	

Part Number	Segment Length Dimension A mm	No. of links/segment	No. of segments/m
E1-10-021-028-0	255	10	4 (1020 mm)
E1-17-031-028-0	204	8	5 (1020 mm)
E1-17-044-028-0	255	10	4 (1020 mm)



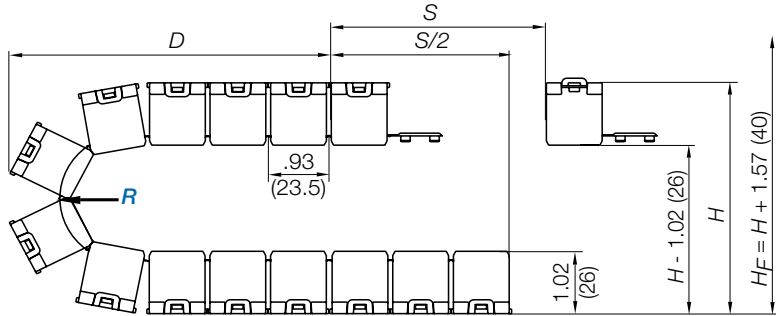
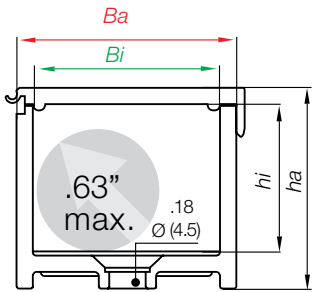
Mounting brackets for the Series E1-17-021



Compact, universal mounting bracket for E1-17-021: Part No. E1-170-021-TS - easy attachment



Series E1-10 - Snap-open along the outer radius



Pitch per link = .99" (25.25 mm)  
Chain length =  $\frac{S}{2} + K$

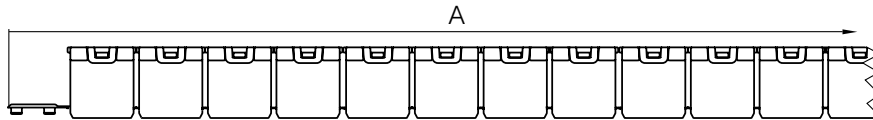
Supplement part number with required radius. Example: E1-18-015-**028**-0  
Pitch: .93 in. (23.5 mm) per link

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/segment (kg/segment)
E1-18-015- <input type="text"/> -0	.59 (15)	.79 (20)	≈ 0.0373 (0.0169)
Choose from the radii below for the above size			
<i>Radius</i> (mm) Example: E1-18-015- <b>028</b> -0			

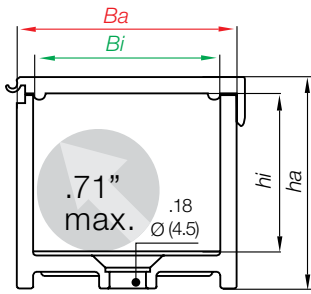
<i>R</i>	1.10 (028)
<i>H</i>	3.62 (92)
<i>D</i>	2.99 (76)
<i>K</i>	4.72 (120)

0=Standard color black. For other colors see Chapter 1

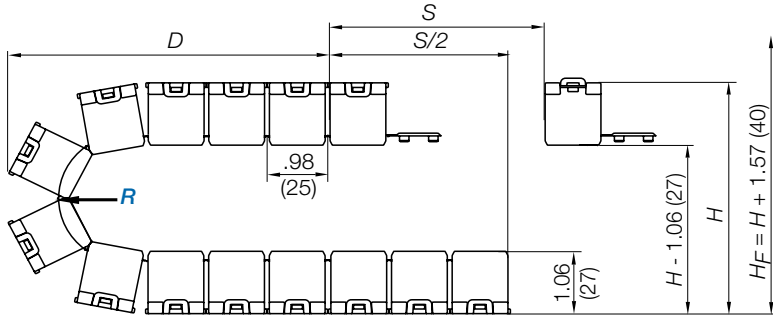
Part Number	Segment Length Dimension A mm	No. of links/segment	No. of segments/m
E1-18-015-028-0	101	4	10 (1010 mm)







Series E1-20 - Snap-open along the outer radius  
 Lids open in alternate directions



Pitch per link = .98" (25 mm)  
 Chain length =  $\frac{S}{2} + K$

Supplement part number with required radius. Example: E1-20-015-028-0  
 Pitch: .98 in. (25 mm) per link

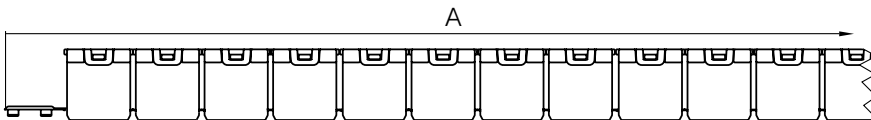
Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/segment (kg/segment)
E1-20-015- <span style="border: 1px solid black; padding: 0 2px;">  </span> -0	.59 (15)	.87 (22)	≈ 0.0977 (0.0443)

Choose from the radii below for the above size

Radius (mm) Example: E1-20-015-028-0

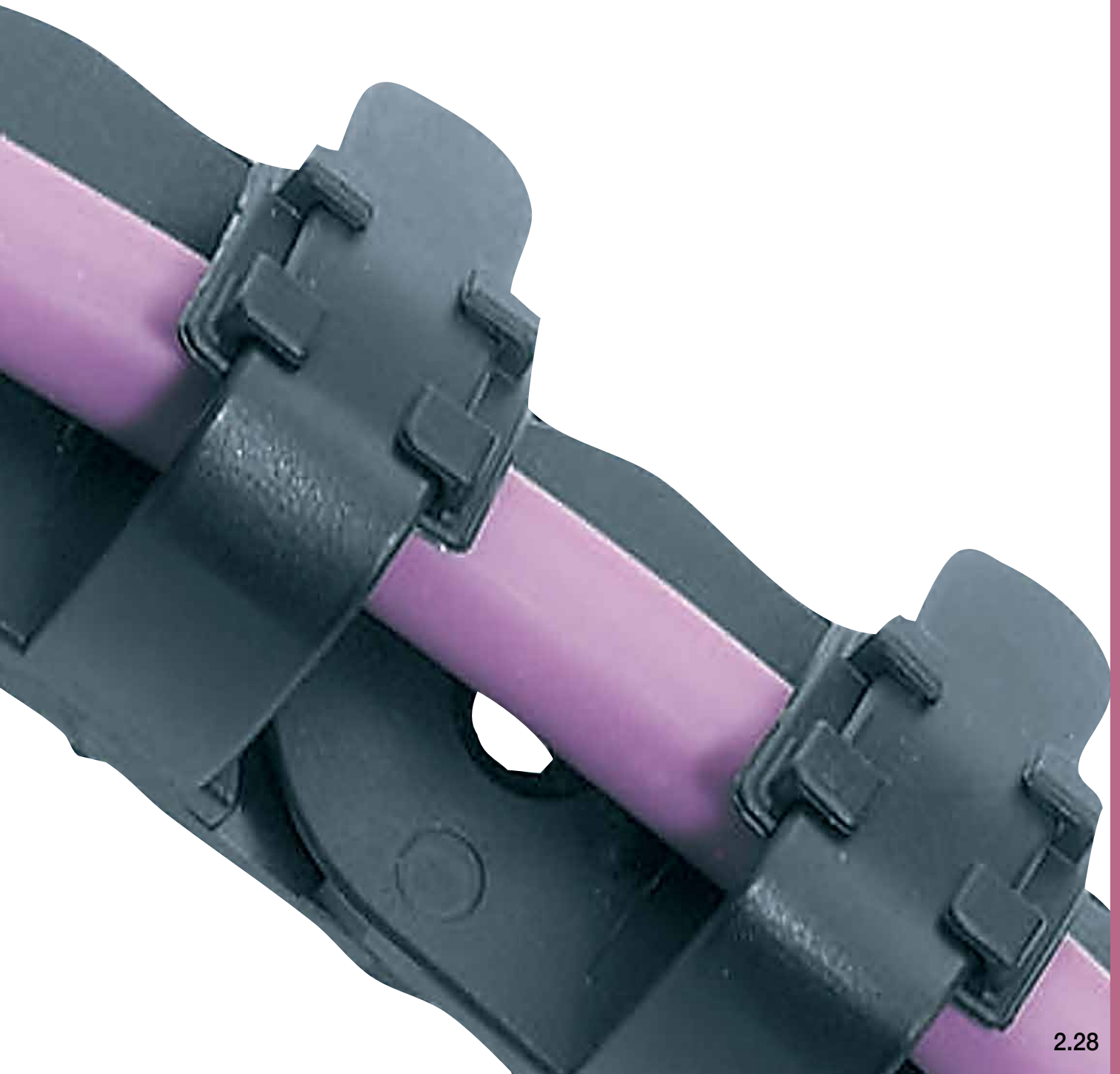
R	1.10 (028)	0=Standard color black. For other colors see Chapter 1
H	3.62 (92)	
D	2.99 (76)	
K	4.72 (120)	

Part Number	Segment Length Dimension A mm	No. of links/segment	No. of segments/m
E1-20-015-028-0	250	10	4 (1000 mm)





# igus<sup>®</sup> snapchain



Save time:  
Fit cable assemblies quickly in bunches,  
available in 2 sizes

Flexible:  
Adjust and change  
cables at any time

Opening principle:  
Version TE14/TE26 can  
be opened along the outer and  
TZ14/TZ26 can be opened along the  
inner radius

Simple:  
Favorable alternative to  
complex hinged cable trays

Short lengths:  
Well-suited to short  
lengths, ideally 5 - 10 links

Flexible:  
Can be bent in  
1 or 2 directions



## Fit cable assemblies quickly in bunches - snapchain

igus® snapchain is an economical e-chain® for low-duty applications. Tubes are easy to assemble and cost-effective. An ideal solution for less demanding applications.

### Typical industries and applications

- Control cabinets
- Electrical equipment
- Computer cubicles
- Office furniture
- Wherever cables are moved infrequently



e-chain system® - snapchain  
 Series TE-14/TZ-14, TE-26/TZ-26  
 Product Range



**Version TE -**

Loops to be opened along the outer radius

**Version TZ -**

Loops to be opened along the inner radius

Series	Loop length		Pitch		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)
TE14-50	1.97	(50)	1.20	(30.5)	1.10 - 4.92	(028-125)
TE26-120	4.72	(120)	2.20	(56)	2.48 - 7.87	(063-200)
TZ14-50	1.97	(50)	1.20	(30.5)	1.10 - 4.92	(028-125)
TZ26-120	4.72	(120)	2.20	(56)	2.48 - 7.87	(063-200)

Material (e-chain®) - permitted temperature °F -40°F up to +176°F (-40°C up to +80°C)

Flammability Class (e-chain®), igumid NB VDE 0304 IIC UL94 V2

**Technical Data**



Details of material properties

► Chapter 1

**Order example | Order key and color options based on Series TE26.**



**Order example for complete e-chain® 3.28 ft. (1.0 m), color black:**

e-chain® 3.28 ft. (1.0 m) Please indicate chain-lengths or number of links

Order text: 1.0 m TE26-120-100-0

**Part No. Structure**

TE26-120-100-0

Version TE to be opened along the outer radius

TZ26-120-100-0

Version TZ to be opened along the inner radius



Color index (standard black)

Bending radius *R*

Length of loops

Series / Type

Version "TE" or "TZ"



**Available from stock. Orders ship as early as today.\***

\*On average 90% of orders ship the same day..





**Opens along the outer radius**

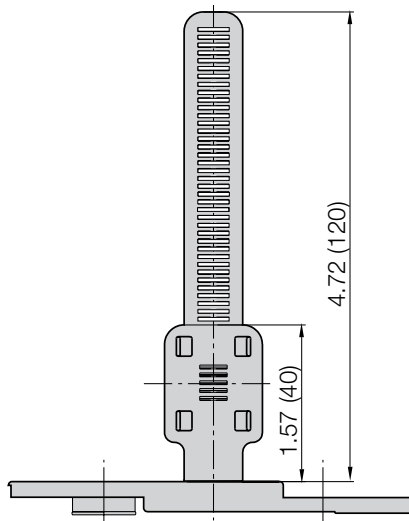
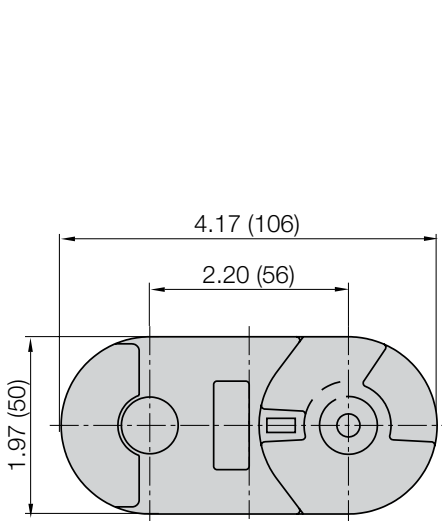
Part Number	Weight lbs/ft (kg/m)
TE26-120- <input type="text"/> -0	≈ 0.2889 (0.43)
Choose from the radii below for the above size	
<i>Radius</i> (mm) Example: TE14-50- <input type="text"/> 028-0	
063	075
100	125
150	200
2.48 (063)	2.95 (075)
3.94 (100)	4.92 (125)
5.91 (150)	7.87 (200)

0 = Standard color black.  
 For other colors see Chapter 1

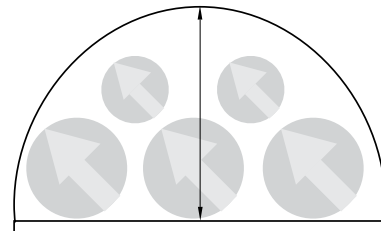
**Opens along the inner radius**

Part Number	Weight lbs/ft (kg/m)
TZ26-120- <input type="text"/> -0	≈ 0.2889 (0.15)
Choose from the radii below for the above size	
<i>Radius</i> (mm) Example: TE14-50- <input type="text"/> 028-0	
063	075
100	125
150	200
2.48 (063)	2.95 (075)
3.94 (100)	4.92 (125)
5.91 (150)	7.87 (200)

0 = Standard color black.  
 For other colors see Chapter 1



Pitch per link = 2.20" (56 mm)  
 Links per ft (m) = 5.45 (18)  
 Chain length =  $\frac{s}{2} + K$



Cable package max.: 47 mm







# igus<sup>®</sup> office e-chain<sup>®</sup>



# Energy supply for offices and furniture - office e-chain®

Cables fitted quickly, e-chain® attached quickly, attractive design, nice and tidy. This e-chain® was designed and developed especially for the furniture industry.

- Aesthetic design
- Closed outer contours (half-tube)
- Mounting brackets easy to clip on
- Easy to fill, even when installed with “easy” design
- Cable-friendly due to smooth interior
- UL94-V2 certified
- Mounting brackets can be either screwed or bonded thanks to the large flat surface on the bottom

## Typical industries and applications

- Electrically adjustable furniture
- Miscellaneous applications without highly dynamic movements





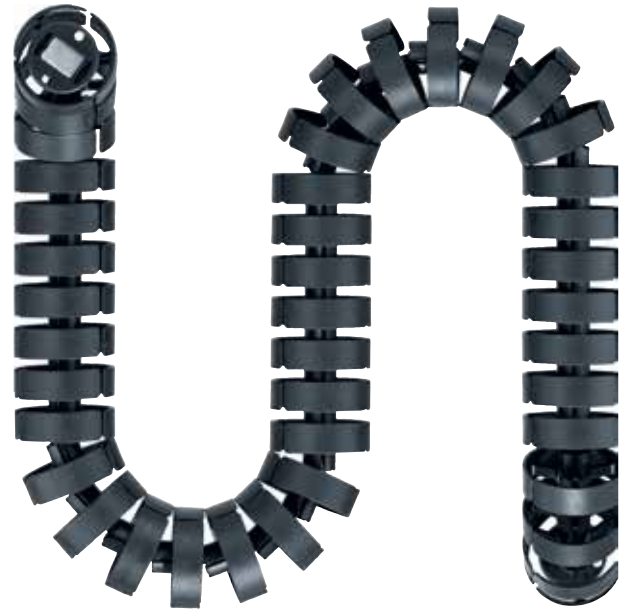
Insert cables quickly and easily with the office e-chain®, the energy supply for offices and furniture

### New: OCR office e-chain® - tidy loose cables quickly and easily

- Movable in all axes, round and square versions
- Simply press in or pull out cables with "easy" design
- Mounting brackets with magnets for easy attachment in seconds
- Flexible fitting

Upon request, more information

► [www.igus.com/OCR](http://www.igus.com/OCR)



reddot design award  
winner 2018



Available from stock. Orders ship as early as today.\*

\*On average 90% of orders ship the same day..

**Price Index**


Series ZF14

**Special Features / Options**

 Flammability Class  
 VDE 0304 IIC UL94 V2

**Features & Benefits**

- 1 Mounting brackets: the e-chain<sup>®</sup> is easily clipped on
- 2 Stylishly simple: designed and developed especially for the furniture industry
- 3 Save time: simply press cables in, with “easy” design
- 4 Abrasion-optimized: cable-friendly due to smooth interior
- 5 Strong: prevents unintentional sideways movement
- 5 Protected: closed on the outside for cable protection and concealment
- 5 Colors: different colors available upon request


**Usage Guidelines**


- Aesthetic design
- Closed outer contours (half tube)
- Easy to fill, even when installed
- Cable-friendly due to smooth interior
- Mounting brackets can either be screwed or bonded due to the large flat bottom surface



- When an unsupported application is required
  - **E-Z chain, Chapter 2**
- Where small semi-static applications are required
  - **E1, Chapter 2**
- When a multi-axis solution is desired
  - **OCR office e-chain<sup>®</sup>,**
  - **www.igus.com/OCR**

**Order Example: Complete E-Chain<sup>®</sup>**

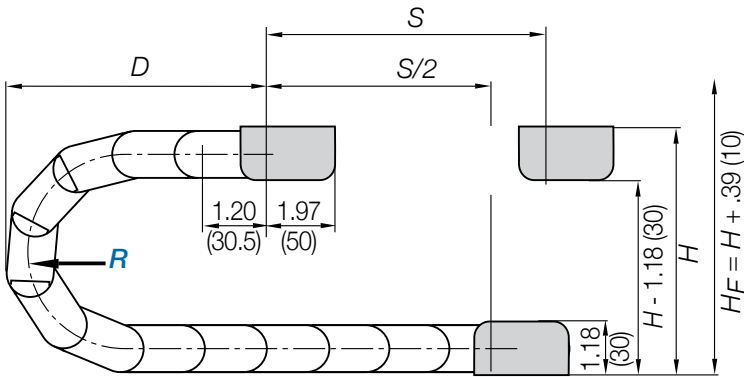
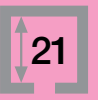
Please indicate chain length or number of links. Example:

3.28 ft (1 m) **ZF14-038-028-0****e-chain<sup>®</sup>**1 Set **ZF114-038-12****Mounting Bracket**

e-chain system® office e-chain®  
 Series ZF14  
 Installation Dimensions



ZF14



Pitch per link = 1.20" (30.5 mm)  
 Links per ft (m) = 10 (33)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_c = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight).  
 Please consult igus® if space is particularly restricted.

R	1.10 (028)
H*	3.39 (86)
D	4.59 (116.5)
K	8.31 (211)



Part Number Structure

ZF14-038-028-0

- Color - Black
- Bending radius
- Width (depends on Bi)
- Series

Version ZF14 | "easy" design, split crossbar along the inner radius

Part No.	Bi	Ba	R Available bending radius	Weight
e-chains®	in. (mm)	in. (mm)	in. (mm)	lbs/ft. [kg/m]
ZF14-038-028-0	1.50 (38)	1.83 (46.6)	1.10 (028)	≈ 0.200 (0.297)

Complete Part No. with required radius (R). Example: ZF14-038-028-0

Material (E-Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (E-Chain®), igumid NB	VDE 0304 IIC UL94-HB
Flammability Class (Mounting brackets), igumid G	VDE 0304 IIC UL94 V2

Technical Data



Details of material properties

► Chapter 1

PDF: [www.igus.com/E-Chain-pdfs](http://www.igus.com/E-Chain-pdfs)  
 Specs/CAD/RFQ: [www.igus.com/E-Chains](http://www.igus.com/E-Chains)  
 RoHS info: [www.igus.com/RoHS](http://www.igus.com/RoHS)



**Part No. ZF114-038-12 -**  
**consisting of 2 x ZF114-038-1**

Width index	Part No. full set	A in. (mm)	B in. (mm)
-038	ZF114-038-12	2.03 (51.6)	1.97 (50)

Suitable mounting bracket for moving and fixed ends

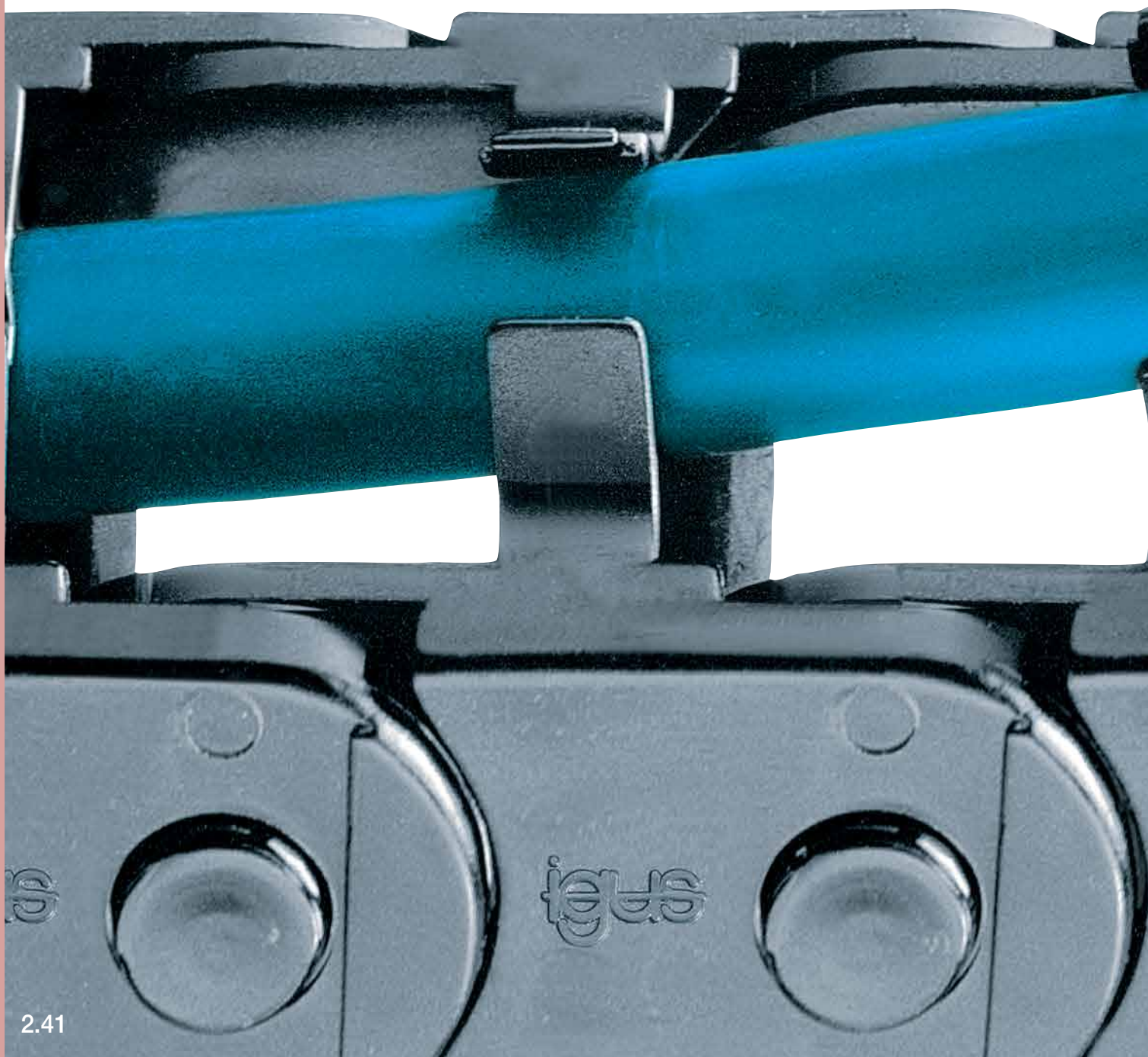
Mounting brackets for easy fitting to furniture.  
Can be easily detached and re-attached.





PDF: [www.igus.com/E-Chain-pdfs](http://www.igus.com/E-Chain-pdfs)  
Specs/CAD/RFQ: [www.igus.com/E-Chains](http://www.igus.com/E-Chains)  
RoHS info: [www.igus.com/RoHS](http://www.igus.com/RoHS)







# igus<sup>®</sup> E-Z chain

Easy to fill

CHAINFLEX<sup>®</sup>

igus

igus

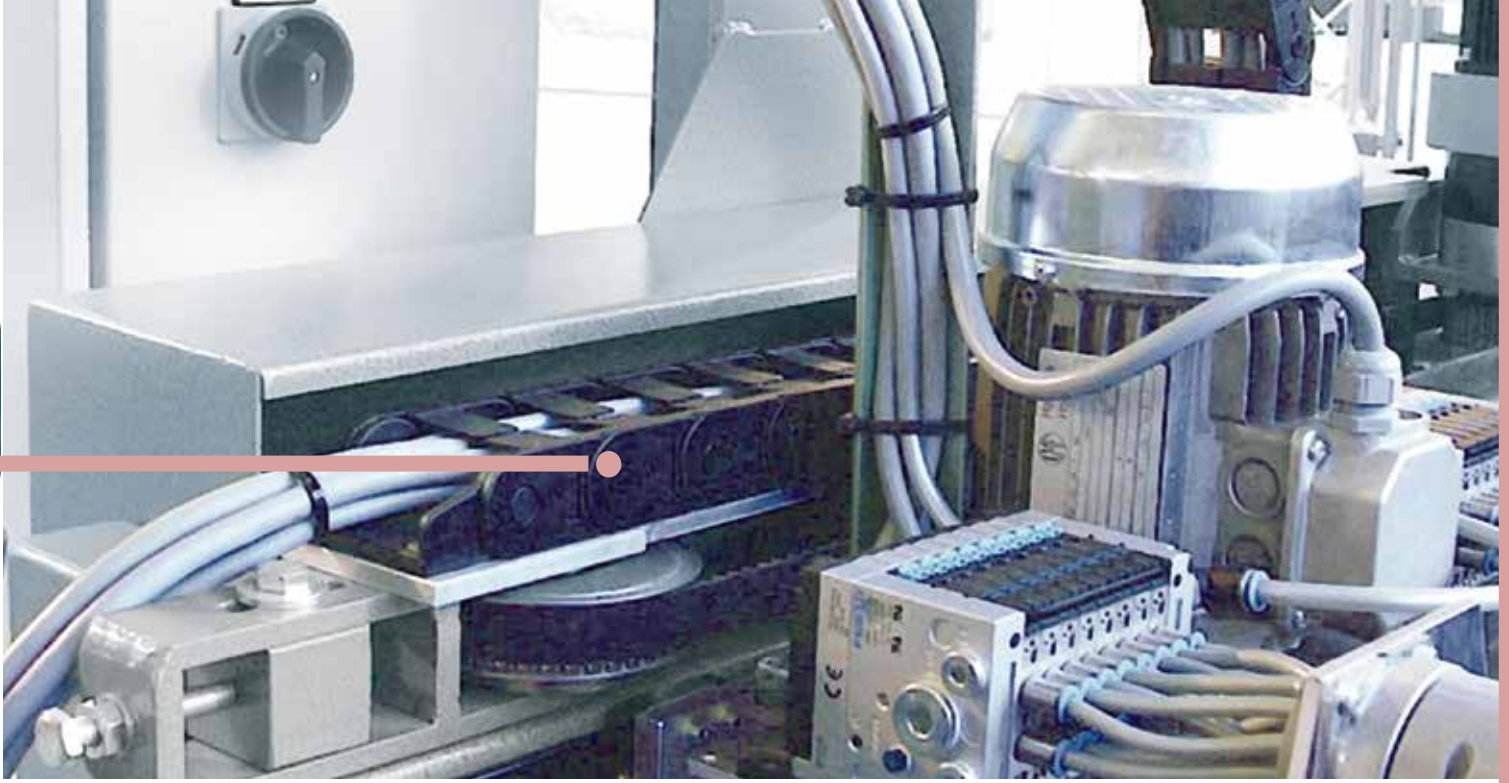
# E-Z chain - easy to fill and very cost-effective

**E-Z chain** – cost effective cable carrier offers easy access to cables and hoses. E-Z chain cable carriers are designed with a split crossbar along the outer or inner radius for fast installation or removal of cables and hoses—without any tools. The split crossbars are flexible, but retain their shape and strength to provide secure protection and easy cable accessibility.

## Typical industries and applications

- General machinery
- Cleanroom applications
- Electronic apparatus
- Office equipment
- Vending machines
- Packaging machines





Machinery of all kinds feature igus® E-Z chains - reduces assembly times



Clean room test acc. to Fraunhofer Institute IPA

Standard material - ISO Class 2 acc. to ISO 14644-1

Speed:  $v = 3.28 \text{ ft/s}$  (1.0 m/s) and  $a = 6.56 \text{ ft/s}$  (2.0 m/s) -

Series E14-3-038



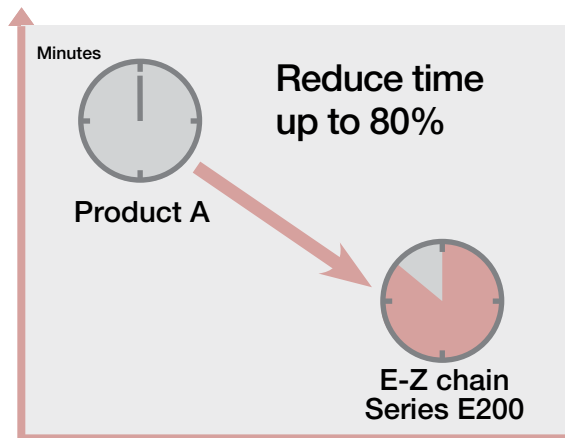
Special equipment: Electrically conductive ESD/ATEX version upon request.



Flammability Class  
VDE 0304 IIC UL94 V2



With E-Z chain rotary and torsional motions are possible



Assembly time: Insertion of 2 cables Ø .24" and .39" (6 and 10 mm).

We can provide you with more details about this and other tests.

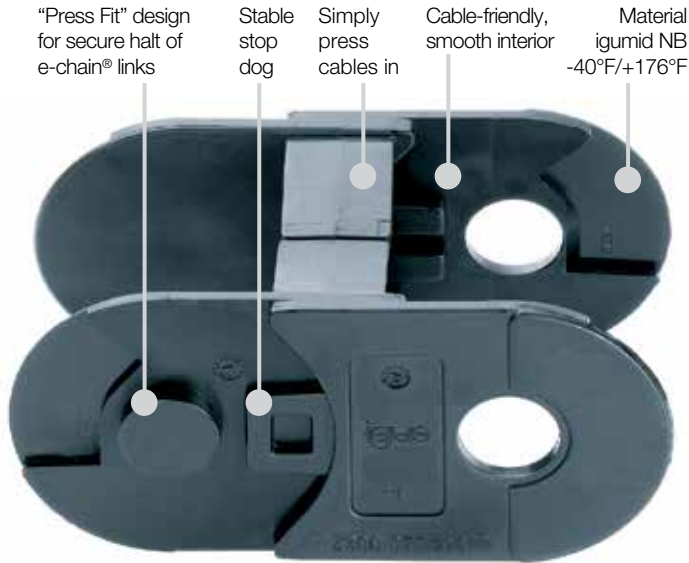


E-Z chain Series E14 on server unit, removable for maintenance purposes Cleanroom Class 2 ISO is standard



E-Z chain on adjustable office furniture with UL94 - V2 Classification

# e-chain system® E-Z chain Series



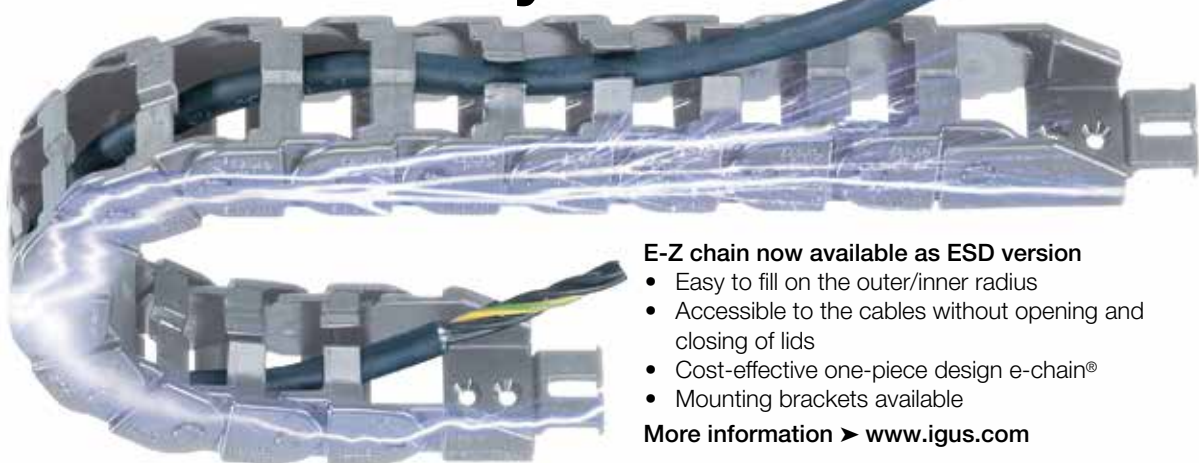
## E-Z chain: “E” and “Z” makes “Easy”

- Easy to fill from the outer (exterior) radius (Version “E”) or inner radius (Version “Z”)
- Fast cable accessibility without opening and closing lids
- Easy to lengthen and shorten at any point
- Low price with one-piece design
- Dirt-repellent, contoured exterior
- Mounting brackets available with integrated strain relief
- Limited torsion tolerance
- Available with interior separation (some types)
- Flammability rating UL94-V2
- Suitable for clean-room applications
- You can find more technical data about the material, chemical resistance, temperatures ► **Chapter 1, Design**

### Selection table

Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
E03	.20	(5)	.20 - .39	(5-10)	.34 - .54	(8.7-13.7)	.31	(8)	.39 - 1.10	(10-28)
E04	.28	(7)	.28	(7)	.51	(13)	.39	(10)	.59 - 1.89	(15-48)
E045/Z045	.37	(9.4)	.39 - 1.06	(10-27)	.63 - 1.46	(16-37)	.49	(12.5)	.71 - 1.50	(18-38)
E06/Z06	.41/.42	(10.5 / 10.7)	.39 - .79	(10-20)	.65 - 1.04	(16.5-26.5)	.59	(15)	.71 - 1.50	(18-38)
E065	.44	(11.3)	.63 - 1.42	(16-36)	.98 - 1.94	(24.8-49.3)	.59	(15)	.71 - 1.50	(18-38)
E08/Z08	.57/.58	(14.6 / 14.7)	.39 - 1.97	(10-50)	.72 - 2.29	(18.2-58.2)	.76	(19.3)	1.10 - 1.89	(28-48)
E14/Z14	.75	(19)	.59 - 1.97	(15-50)	1.06 - 2.44	(27-62)	.98	(25)	1.10 - 4.92	(28-125)
E200/Z200	.96	(24.3)	1.46 - 2.24	(37-57)	2.93 - 4.74	(74.4-120.4)	1.38	(35)	2.17 - 7.87	(55-200)
E16/Z16	1.26	(32)	.91 - 3.94	(23-100)	1.48 - 4.54	(37.5-115.3)	1.54	(39)	1.57 - 3.94	(40-100)
E26/Z26	1.44/1.46	(36.5 / 37.1)	1.85 - 2.95	(47-75)	3.62 - 6.57	(92-167)	1.97	(50)	2.48 - 9.84	(63-250)
E300/Z300	1.91	(48.5)	1.81 - 2.95	(46-75)	3.74 - 6.69	(95-170)	2.52	(64)	2.95 - 11.81	(75-300)

## Quick assembly with ESD!



### E-Z chain now available as ESD version

- Easy to fill on the outer/inner radius
- Accessible to the cables without opening and closing of lids
- Cost-effective one-piece design e-chain®
- Mounting brackets available

More information ► [www.igus.com](http://www.igus.com)



Available from stock. Orders ship as early as today.\*

\*On average 90% of orders ship the same day..

# e-chain system® E-Z chain Series

## Assembling | Separating | Filling | Series E03 · E04 · E/Z045



1 Twist and click or twist and divide



2 Press in cable

## Assembling | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300

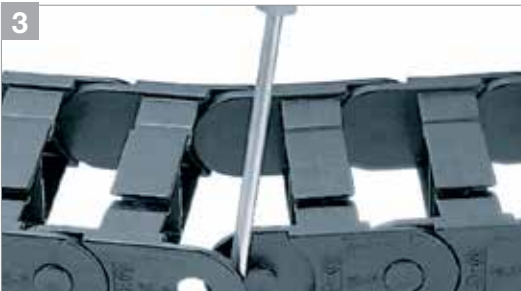


1 Push and click...



2 Snap in pin

## Separating | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300



3 Release side link



4 Twist and pull apart

## Filling | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300

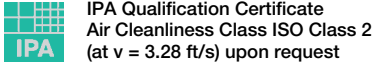


5 Press in cable



6 Pull out cable

**Price Index**

**Series E03**
**Special Features / Options**

 IPA Qualification Certificate  
 Air Cleanliness Class ISO Class 2  
 (at v = 3.28 ft/s) upon request

 Flammability Class  
 VDE 0304 IIC UL94 V2

 Smallest inner heights .20" (5 mm)  
 Series E03 E-Z chain

**Assembly Tips**

 Just push the cables into the e-chain  
 using your thumb

**Usage Guidelines**


- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a non-opening Energy is needed  
 ➤ **Series 03 E2 Micro**

**Features & Benefits**

- 1 Smallest e-chain® -  
interior dimensions .20" x .20" (5 x 5 mm)
- 2 Small pitch for low-noise and smooth operation
- 3 Very easy to fill, without opening and closing lids
- 4 Mounting bracket with integrated strain relief
- 5 Very lightweight - ideal for low fill weight
- 6 Patented push button design holds the links together
- 7 For smallest bending radii  
chainflex® CF98/CF99 - 4 x d


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

 3.28 ft (1 m) **E03-05-010-0**
**e-chain®**

 1 Set **E03-05-12Z**
**Mounting Bracket**

# e-chain system® E-Z chain

## Series E03

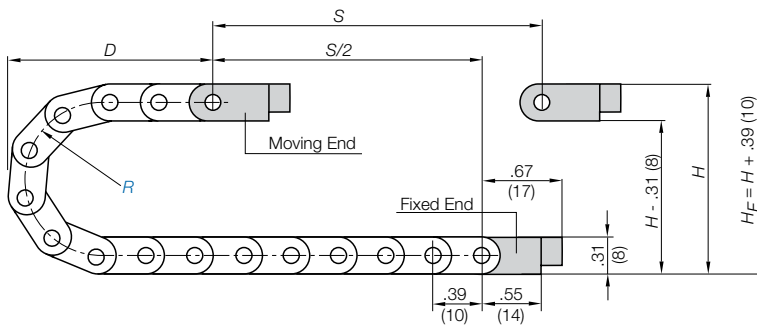
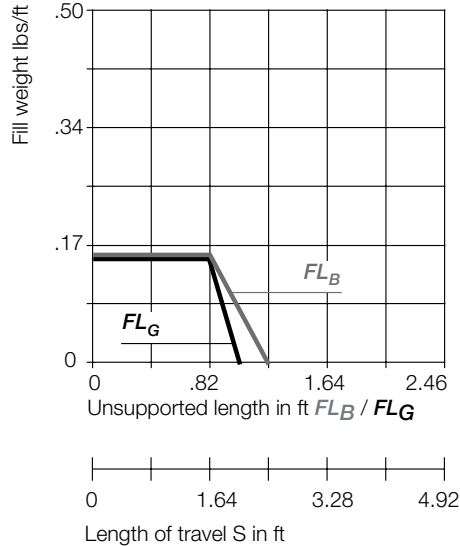
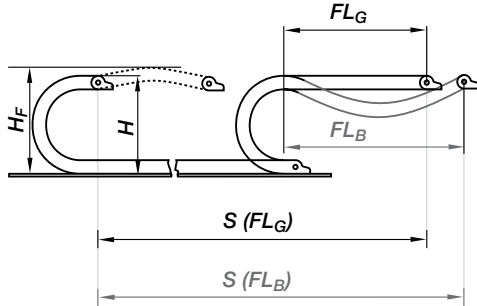
### Installation Dimensions



E03

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = .39" (10 mm)  
 Links per ft (m) = 30.47 (100)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .067 lbs/ft (0.1 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.39 (010)	.47 (012)	.59 (015)	.71 (018)	1.10 (028)
H	1.10 (28)	1.26 (32)	1.50 (38)	1.73 (44)	2.52 (64)
D	1.14 (29)	1.22 (31)	1.34 (34)	1.46 (37)	1.85 (47)
K	2.17 (55)	2.36 (60)	2.76 (70)	3.15 (80)	4.33 (110)

#### Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

\*Available in igumid NB upon request, please consult igus® for delivery time

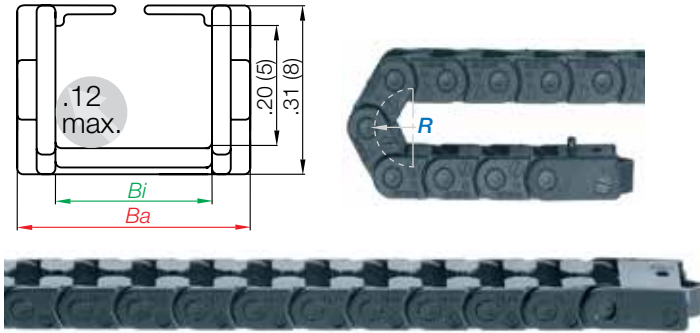
#### Technical Data



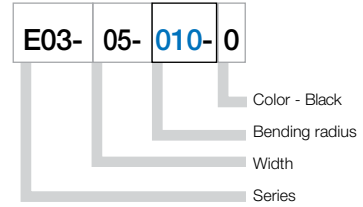
Details of material properties

► Chapter 1

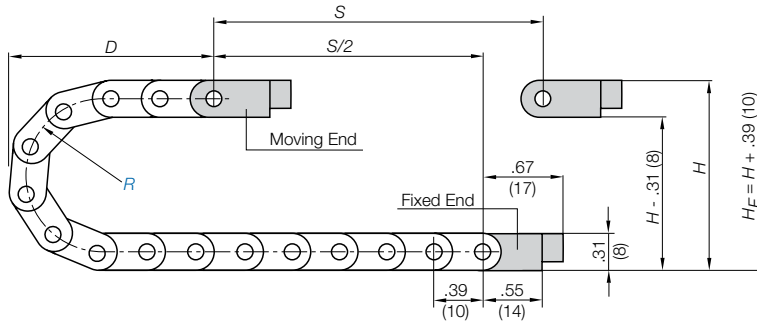
Series E03 - Split crossbar along the outer radius



Part Number Structure



Telephone 1-800-521-2747



Supplement part number with required radius. Example: E03-05--0  
Pitch: .39 in. (10 mm) per link links/ft (m) = 30.47 (100)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)	Crossbar gap in. (mm)
E03-05- <input type="text" value="010"/> -0*	.20 (5)	.34 (8.7)	≈ 0.020 (0.03)	.04 (1)
E03-07- <input type="text" value="010"/> -0*	.28 (7)	.42 (10.7)	≈ 0.026 (0.04)	.08 (2)
E03-10- <input type="text" value="010"/> -0*	.39 (10)	.54 (13.7)	≈ 0.033 (0.05)	.08 (2)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: 03-05--0

	<input type="text" value="010"/>	<input type="text" value="012"/>	<input type="text" value="015"/>	<input type="text" value="018"/>	<input type="text" value="028"/>
R	.39 (010)	.47 (012)	.59 (015)	.71 (018)	1.10 (028)
H	1.10 (28)	1.26 (32)	1.50 (38)	1.73 (44)	2.52 (64)
D	1.14 (29)	1.22 (31)	1.34 (34)	1.46 (37)	1.85 (47)
K	2.17 (55)	2.36 (60)	2.76 (70)	3.15 (80)	4.33 (110)

0=Standard color black. For other colors see Chapter 1

\*Please note: For this series the crossbars do not overlap. Please see table for gap amount.



# e-chain system® E-Z chain

## Series E03

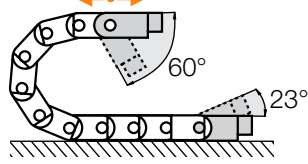
### Mounting Brackets



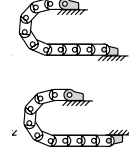
#### Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Adaptor plate for rapid installation

Moving end with bore  
03 ...1Z



Fixed end with pin  
03...2Z

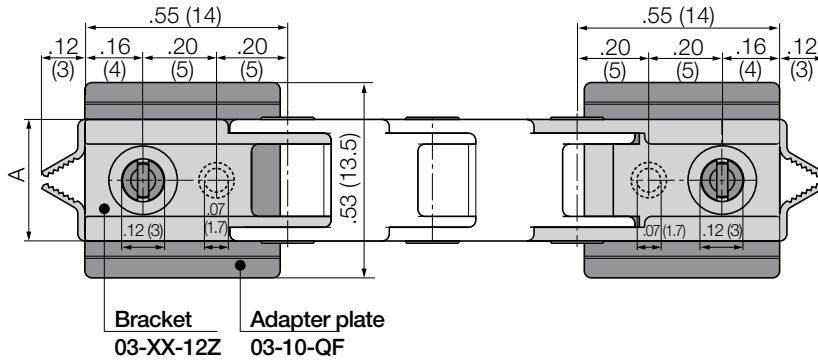


Possible installation configurations -

#### Part Number Structure

03- 05- 12Z

Complete Set  
Width  
Mounting bracket for selected chain type



#### Full set, for both ends:

03- 05- 12Z Full set, each part with pin/bore

#### Single-part order:

03- 05- 1Z Mounting bracket with bore

03- 05- 2Z Mounting bracket with pin

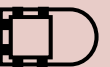
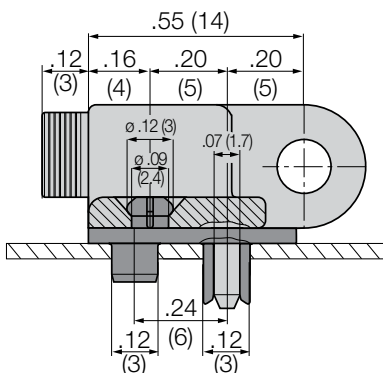
Width Index	Part No.	Dimension A
	Full Set	in. (mm)
-05	03-05-12PZ	.34 (8.7)
-07	03-07-12PZ	.42 (10.7)
-10	03-10-12PZ	.54 (13.7)

## Additional Accessories



#### 03-10-QF = Adapter plate for all sizes

The adapter has broken edges, so that it can be adapted to the respective chain width. It is not absolutely necessary for attaching the mounting brackets. The mounting brackets can also be screwed on without the adapter plate.



**Price Index**


Series E04

**Special Features / Options**


IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request



Flammability Class  
VDE 0304 IIC UL94 V2



Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

**Assembly Tips**


Just push the cables into the e-chain  
using your thumb



Special solution:  
opening gap (0.8 mm)  
Part No. E04-07-015-S

**Usage Guidelines**

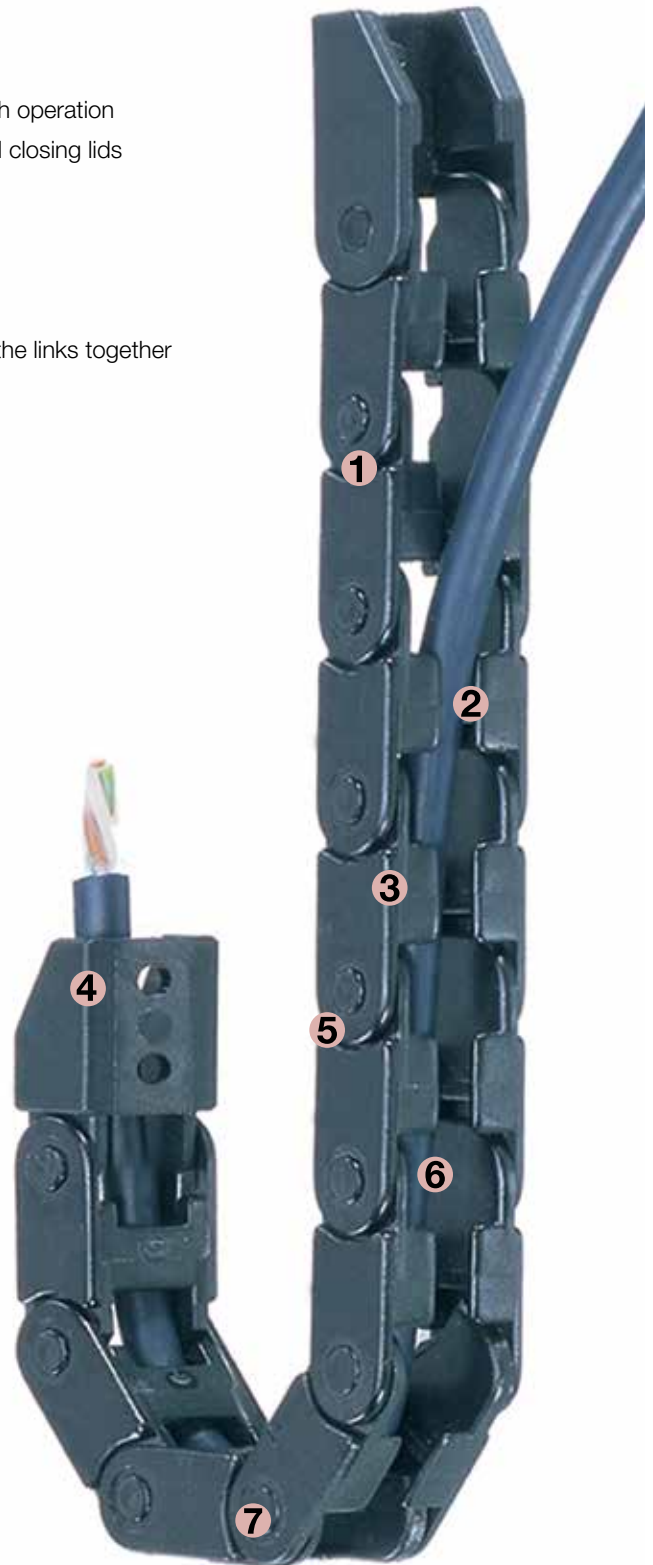

- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a non-opening Energy is needed  
➤ Series 04 E2 Micro

**Features & Benefits**

- 1 Small pitch for low-noise and smooth operation
- 2 Very easy to fill, without opening and closing lids
- 3 For high acceleration
- 4 Mounting brackets available
- 5 Limited torsion tolerance
- 6 Cable friendly smooth interior
- 7 Patented push button design holds the links together


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E04-07-038-0

e-chain®

1 Set 040-07-12

Mounting Bracket

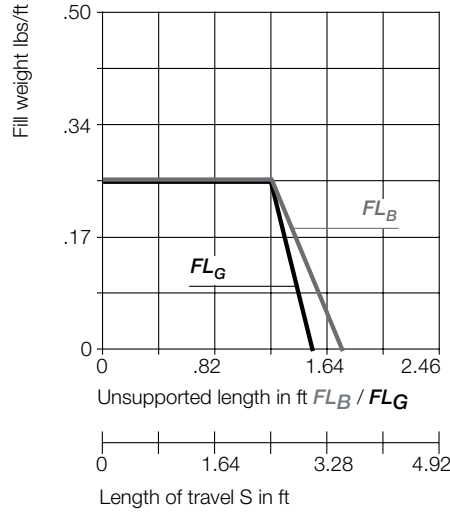
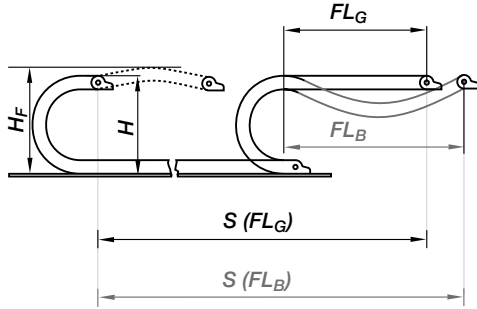
# e-chain system® E-Z chain Series E04 Installation Dimensions



E04

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



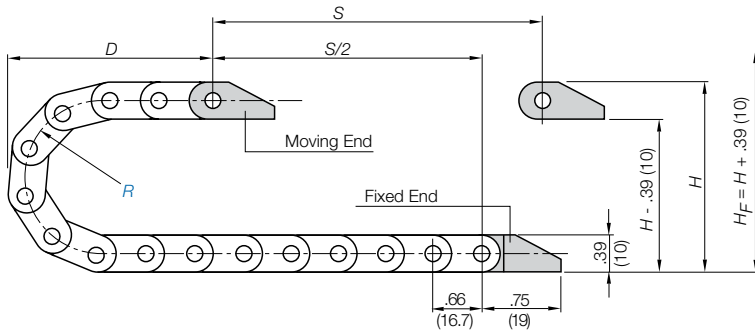
## Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Pitch per link = .66" (16.7 mm)  
Links per ft (m) = 18.28 (60)  
For center mount applications:  
Chain length =  $\frac{S^2}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .067 lbs/ft (0.1 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.59 (015)	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048)
H	1.57 (40)	1.81 (46)	2.60 (66)	3.39 (86)	4.17 (106)
D	1.77 (45)	1.89 (48)	2.28 (58)	2.68 (68)	3.07 (78)
K	3.35 (85)	3.54 (90)	4.92 (125)	6.10 (155)	7.28 (185)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G	VDE 0304 IIC UL94 HB

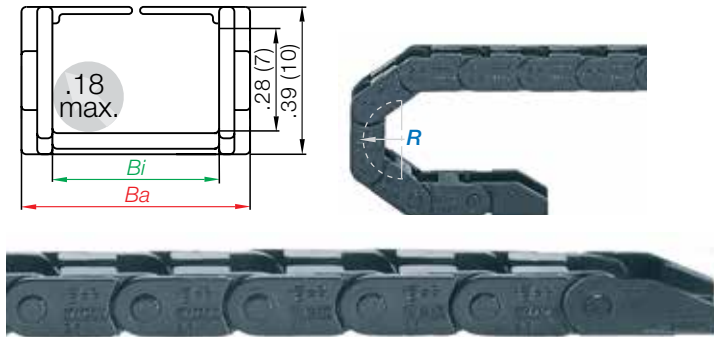
## Technical Data



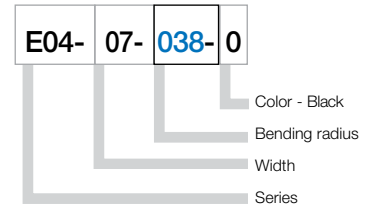
Details of material properties

► Chapter 1

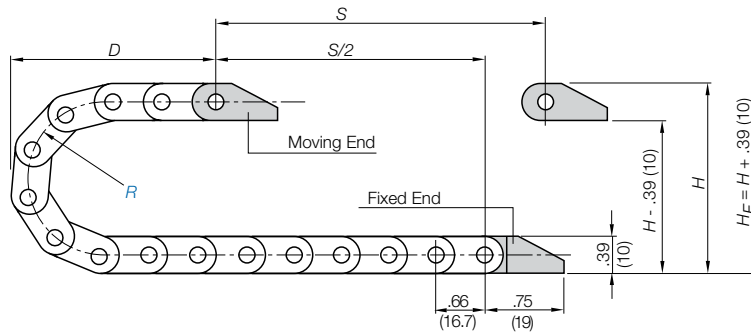
Series E04 - Split crossbar along the outer radius



Part Number Structure



Telephone 1-800-521-2747



Supplement part number with required radius. Example: E04-07--0  
Pitch: .66 in. (16.7 mm) per link links/ft (m) = 18.28 (60)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)	Crossbar Gap in. (mm)
E04-07- <input type="text" value="038"/> -0*	.28 (7)	.51 (13)	≈ 0.053 (0.08)	.10 (2.5)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: E04-07--0

	<input type="text" value="015"/>	<input type="text" value="018"/>	<input type="text" value="028"/>	<input type="text" value="038"/>	<input type="text" value="048"/>
R	.59 (015)	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048)
H	1.57 (40)	1.81 (46)	2.60 (66)	3.39 (86)	4.17 (106)
D	1.77 (45)	1.89 (48)	2.28 (58)	2.68 (68)	3.07 (78)
K	3.35 (85)	3.54 (90)	4.92 (125)	6.10 (155)	7.28 (185)

0=Standard color black. For other colors see Chapter 1  
\*Please note: For this series the crossbars do not overlap. Please see table for gap amount.

# e-chain system® E-Z chain Series E04 Mounting Brackets

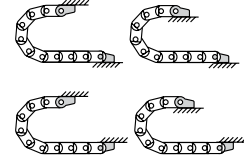
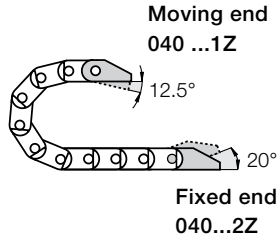


E04



## Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled

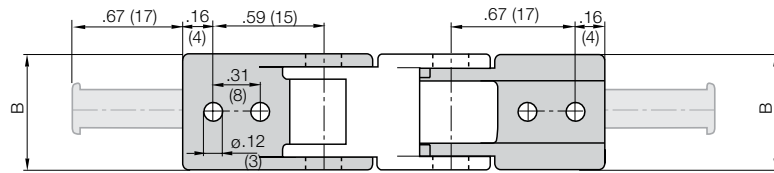


Possible installation configurations -

## Part Number Structure



- With tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



## Full set, for both ends:

040-07-12 Full set, each part with pin/bore

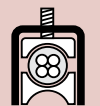
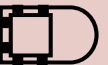
## Single-part order:

040-07-1 Mounting bracket with bore

040-07-2 Mounting bracket with pin

Chain Type	Part No. Full set without Tiewrap Plate	Part No. Full set with Tiewrap Plate	Dimension B in. (mm)	Number of Teeth
E04-07	040-07-12	040-07-12PZ	.47 (12)	1

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



## Additional accessories



**Quicksnap** - the complete, detachable mounting unit, upon request  
Only available for the 040-07 e-chain - **Part No. 040-07-QS**

E045  
Z045



# e-chain system® E-Z chain Series E045/Z045



### Price Index



Series E045

### Special Features / Options



IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request



Flammability Class  
VDE 0304 IIC UL94 V2



Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

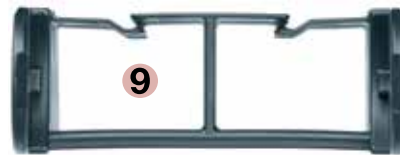
### Assembly Tips



Just push the cables into the e-chain  
using your thumb

### Features & Benefits

- 1 Limited torsion tolerance
- 2 Small pitch for low-noise and smooth operation
- 3 Cable friendly interior
- 4 Patented push button design holds the links together
- 5 Very easy to fill
- 6 Mounting brackets available
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius
- 9 1-, 2-, or 3-chamber system available



### Usage Guidelines



- If filling is required without opening and closing
- If a very small pitch is required



- If smooth operation is required
  - Series 045 E2 Micro
- If high stability is required
  - Series 06 E2 Micro
- If non-opening is required
  - Series 045 E2 Micro

### Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E045-16-038-0



e-chain®

1 Set 0450-16-12



Mounting Bracket

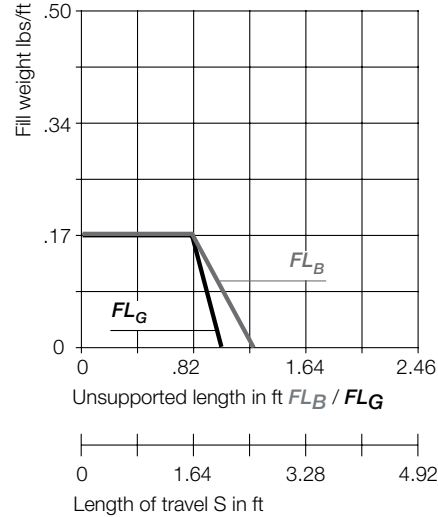
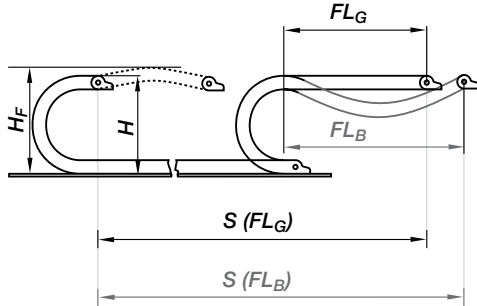
# e-chain system® E-Z chain Series E045/Z045 Installation Dimensions



E045  
Z045

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



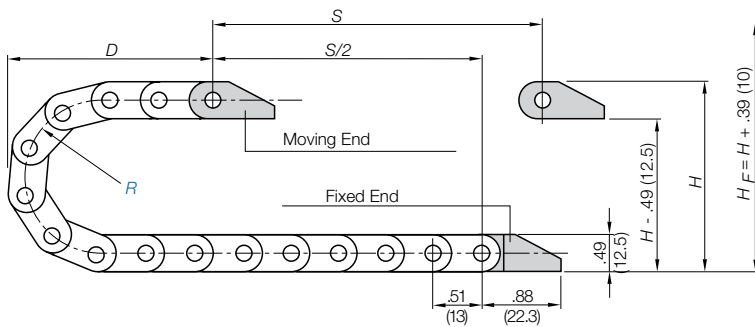
## Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Pitch per link = .51" (13 mm)  
Links per ft (m) = 23.47 (77)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .067 lbs/ft (0.1 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G	VDE 0304 IIC UL94 HB

## Technical Data

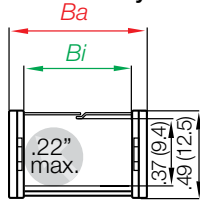


Details of material properties

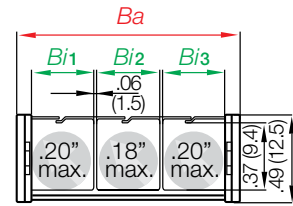
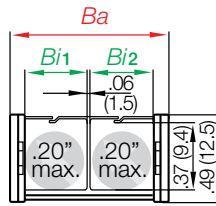
► Chapter 1

Series E045 - Split crossbar along the outer radius

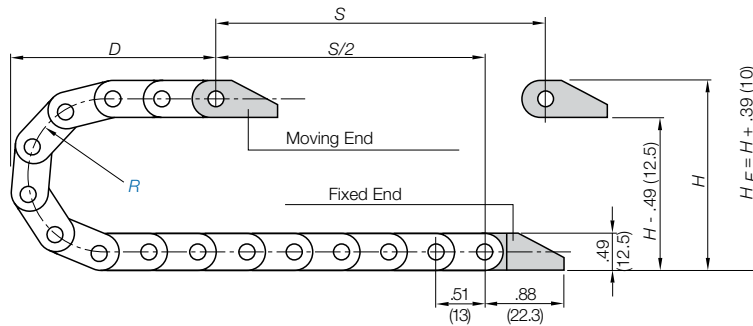
Single Chamber System  
2 Chamber System



3 Chamber System



Supplement part number with required radius. Example: E045-16-038-0  
Pitch: .51 in. (13 mm) per link links/ft (m) = 23.47 (77)



Part Number Structure



Color - Black  
Bending radius  
Width  
Series

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)	Crossbar Gap in. (mm)
<b>Single Chamber System</b>				
E045-10-□-0*	.39 (10)	.63 (16)	≈ 0.06 (0.09)	.08 (2)
E045-16-□-0	.63 (16)	.91 (23)	≈ 0.07 (0.11)	-
<b>2 Chamber System</b>				
E045-2/7-□-0*	.28/.28 (7/7)	.91 (23)	≈ 0.09 (0.13)	.09 (2.25)
E045-2/9-□-0*	.35/.35 (9/9)	1.06 (27)	≈ 0.09 (0.14)	.09 (2.25)
<b>3 Chamber System</b>				
E045-3/9-□-0*	.35/.35/.35 (9/9/9)	1.46 (37)	≈ 0.11 (0.17)	.09 (2.25)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: E045-16-038-0

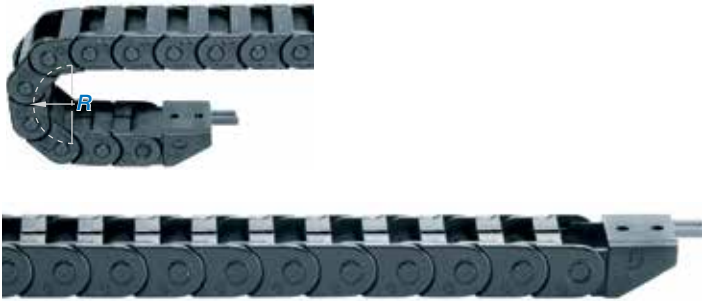
	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)

0=Standard color black. For other colors see Chapter 1  
\*Please note: For this series the crossbars do not overlap. Please see table for gap amount.

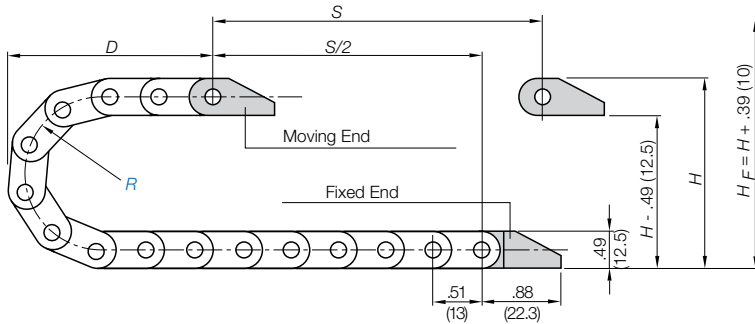


Series Z045 - Split crossbar along the inner radius

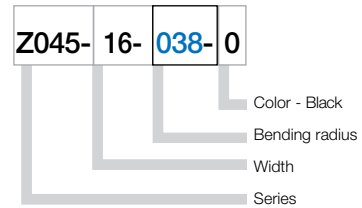
Single Chamber System  
2 Chamber System



Supplement part number with required radius. Example: Z045-16-038-0  
Pitch: .51 in. (13 mm) per link links/ft (m) = 23.47 (77)



Part Number Structure



Part Number	Bi	Ba	Weight	Crossbar Gap
Single Chamber System	in. (mm)	in. (mm)	lbs/ft (kg/m)	in. (mm)
Z045-16- <input type="text"/> -0*	.63 (16)	.91 (23)	≈ 0.07 (0.11)	.08 (2)

2 Chamber System	Bi	Ba	Weight	Crossbar Gap
Z045-2/7- <input type="text"/> -0*	.28/.28 (7/7)	.91 (23)	≈ 0.09 (0.13)	.09 (2.25)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: Z045-16-038-0

	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)

0=Standard color black. For other colors see Chapter 1

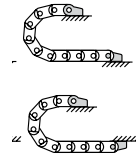
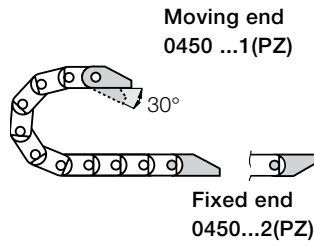
\*Please note: For this series the crossbars do not overlap. Please see table for gap amount.





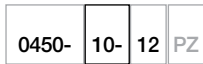
**Polymer, one-piece**

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled



Possible installation configurations -

**Part Number Structure**



- With tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type

Full set, for both ends:

0450-10-12-PZ

Full set, each part with pin/bore + tiewrap plate

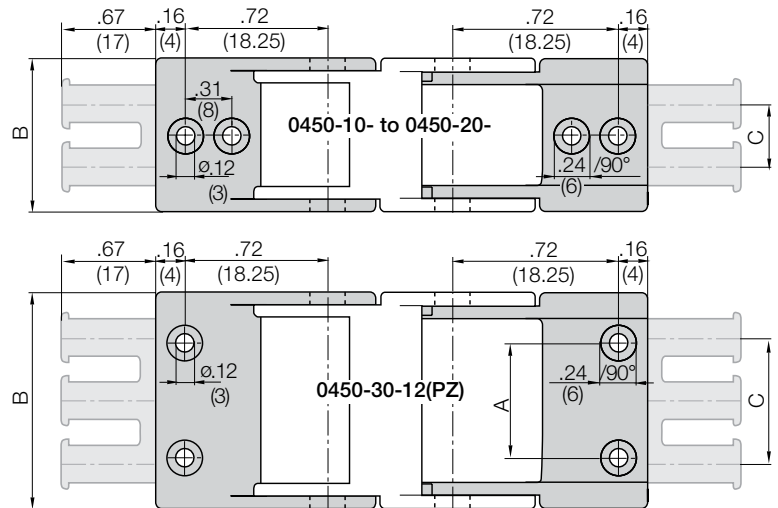
Single-part order:

0450-10-1-PZ

Mounting bracket with bore + tiewrap plate

0450-10-2-PZ

Mounting bracket with pin + tiewrap plate



Chain Type	Part No.		Dimension A in. (mm)	Dimensions B in. (mm)		Dimension C in. (mm)		Number of Teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate						
E045/Z045-10	0450-10-12PZ	0450-10-12	—	—	.63 (16)	—	—	1
E045/Z045-16	0450-16-12PZ	0450-16-12	—	—	.87 (22)	.39 (10)		2
E045/Z045-2/7	0450-16-12PZ	0450-16-12	—	—	.87 (22)	.39 (10)		2
E045/Z045-2/9	0450-20-12PZ	0450-20-12	—	—	1.02 (26)	.39 (10)		2
E045/Z045-3/9	0450-30-12PZ	0450-30-12	.87 (22)		1.42 (36)	.79 (20)		3

**Additional Accessories**



Quickfix - mounting bracket  
with dowel, upon request

Part No.

0450-16-12Q

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



E06  
Z06



# e-chain system® E-Z chain Series E06/Z06



## Price Index



Series E06/Z06

## Special Features / Options



IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request



Flammability Class  
VDE 0304 IIC UL94 V2



Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

## Assembly Tips



Just push the cables into the e-chain  
using your thumb



Special solution -  
opening gap 0.14 (3.5 mm)  
Part No. E06-10-018S3

## Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- "Z" Series is unsuitable for gliding applications
  - Series 07 Zipper
- If non-opening is required
  - Series 06 E2 Micro

## Features & Benefits

- 1 Small pitch for low-noise and smooth operation
- 2 Cable friendly - smooth interior
- 3 Very lightweight
- 4 Patented push button design holds the links together
- 5 Very easy to fill
- 6 Integrated strain relief option
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius
- 9 Limited torsion tolerance



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E06-10-038-0



e-chain®

1 Set 060-10-12



Mounting Bracket

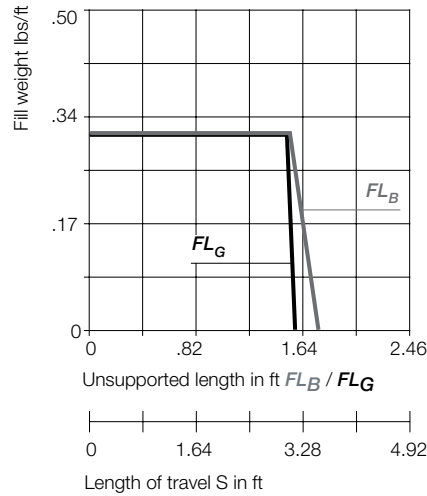
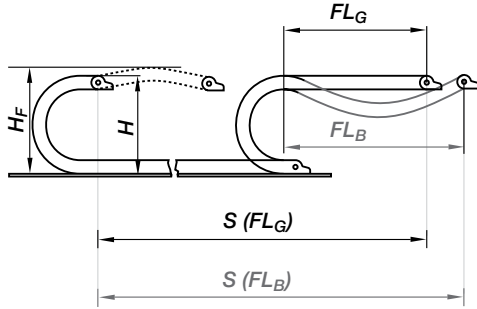
# e-chain system® E-Z chain Series E06/Z06 Installation Dimensions



E06  
Z06

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



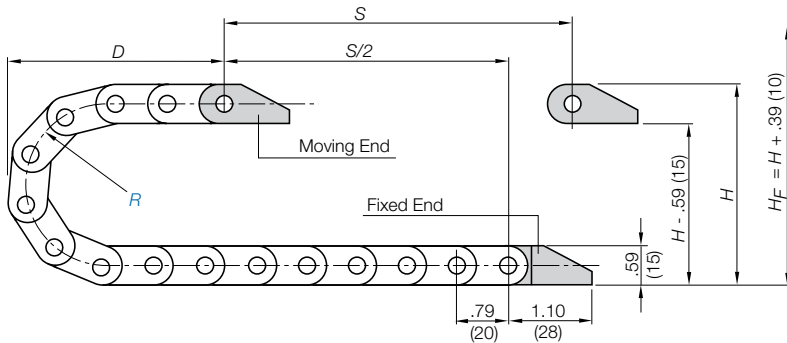
## Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Pitch per link = .79" (20 mm)  
Links per ft (m) = 15.24 (50)  
For center mount applications:  
Chain length =  $S/2 + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G	VDE 0304 IIC UL94 HB

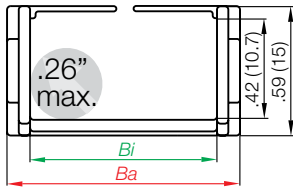
## Technical Data



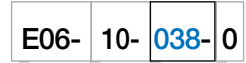
Details of material properties

► Chapter 1

Series E06 - Split crossbar along the outer radius

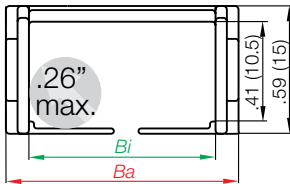


Part Number Structure



Color - Black  
Bending radius  
Width  
Series

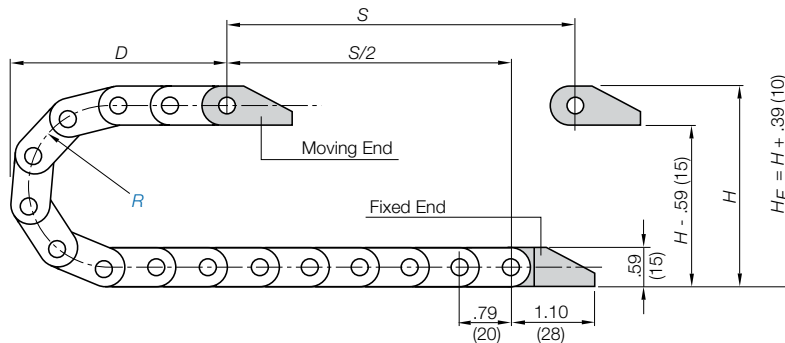
Series Z06 - Split crossbar along the inner radius



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



Supplement part number with required radius. Example: E06-10-038-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number			Bi	Ba	Weight	Crossbar Gap
Split Crossbar Outer Radius	Split Crossbar Inner Radius		in. (mm)	in. (mm)	lbs/ft (kg/m)	in. (mm)
E06-10	Z06-10*	<input type="text" value="0"/>	.39 (10)	.65 (16.5)	≈ 0.09 (0.14)	.22 (5.5)
E06-16-	Z06-16*	<input type="text" value="0"/>	.63 (16)	.86 (22.5)	≈ 0.11 (0.16)	.22 (5.5)
E06-20-	Z06-20	<input type="text" value="0"/>	.79 (20)	1.04 (26.5)	≈ 0.12 (0.18)	-

Choose from the radii below for all of the above sizes  
Radius (mm) Example: E06-10-038-0

	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)

0=Standard color black. For other colors see Chapter 1  
\*Please note: For this series the crossbars do not overlap. Please see table for gap amount.

# e-chain system® E-Z chain Series E06/Z06 Mounting Brackets

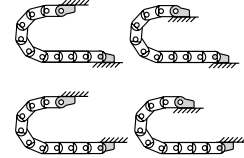
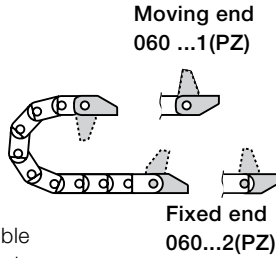


E06  
Z06



## Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without integrated strain relief tiwrap plates

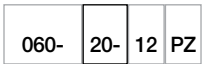


Possible installation configurations -

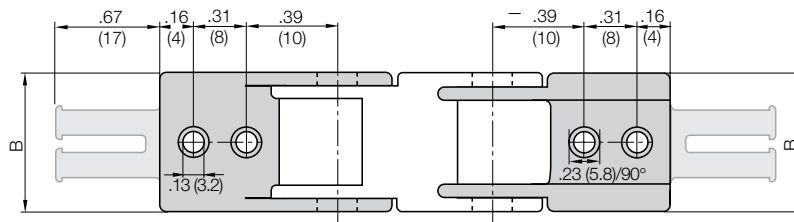
## Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

### Part Number Structure



- With assembled strain relief tiwrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



### Full set, for both ends:

060- 20- 12 PZ Full set, each part with pin/bore

### Single-part order:

060- 20- 1 PZ Mounting bracket with bore

060- 20- 2 PZ Mounting bracket with pin

Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Dimensions B		Number of Teeth
			in.	(mm)	
E06/Z06-10	060-10-12PZ	060-10-12	.65	(16.5)	1
E06/Z06-16	060-16-12PZ	060-16-12	.89	(22.5)	2
E06/Z06-20	060-20-12PZ	060-20-12	1.06	(27.0)	2

## Additional Accessories



**Quicksnap** - the complete, detachable mounting unit, upon request

### Part No.

060-10-QS

060-16-QS

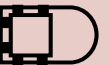
060-20-QS



**Quickfix** - mounting bracket with dowel, upon request

Part No. 060-20-34QZ

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



Price Index



Series E065/Z065

Special Features / Options

IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request

Flammability Class  
VDE 0304 IIC UL94 V2

Torsional motion possible

Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

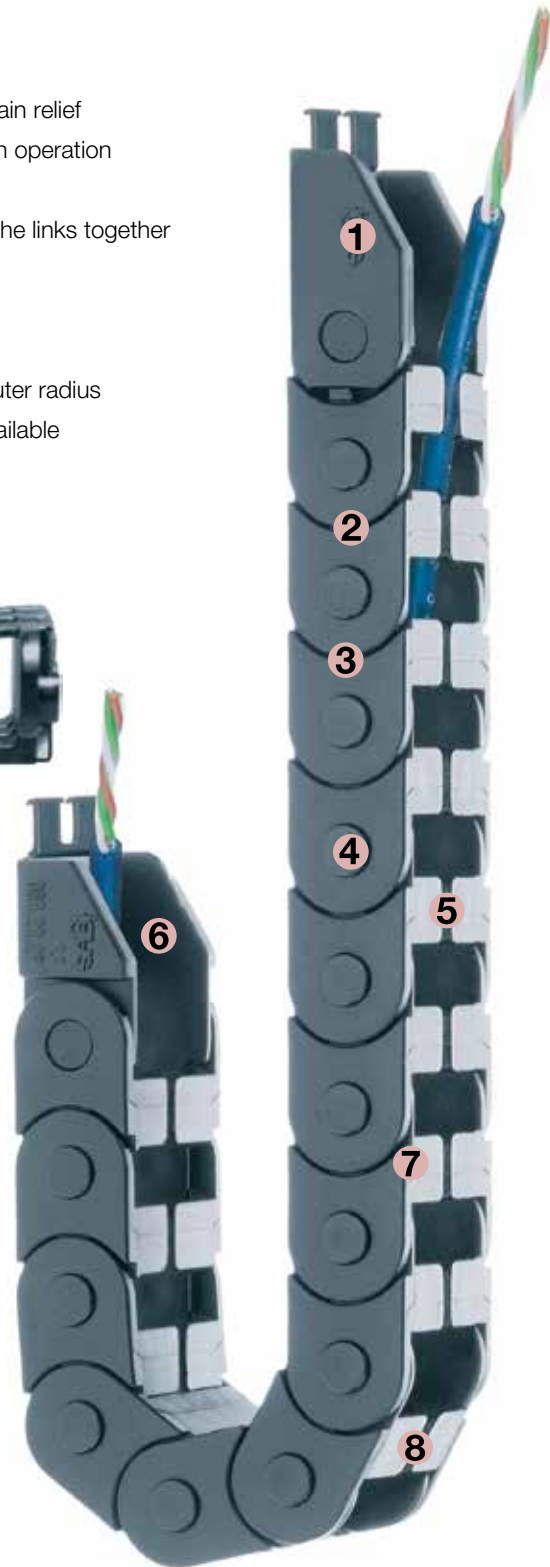
Assembly Tips



Just push the cables into the e-chain using your thumb

Features & Benefits

- 1 Mounting bracket with integrated strain relief
- 2 Small pitch for low-noise and smooth operation
- 3 Very lightweight
- 4 Patented push button design holds the links together
- 5 Very easy to fill
- 6 Cable friendly - smooth interior
- 7 Limited torsion tolerance
- 8 Split crossbar along the inner and outer radius
- 9 1-, 2-, 3- and 4-chamber system available



Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If high loads and long unsupported lengths are present  
➤ Series 06 E2 Micro

**Order Example: Complete e-chain®**  
Please indicate chain length or number of links. Example:

3.28 ft (1 m) E065-16-038-0

e-chain®

1 Set 0650-16-12PZ

Mounting Bracket



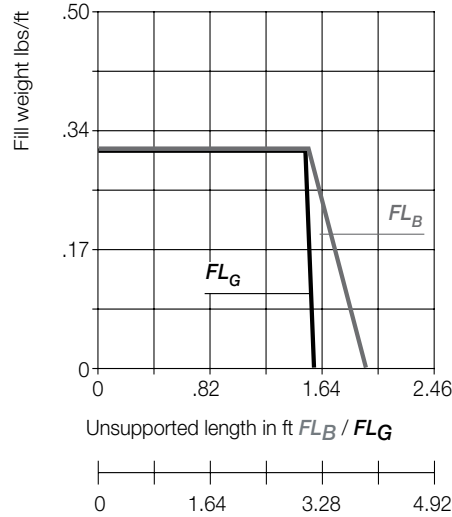
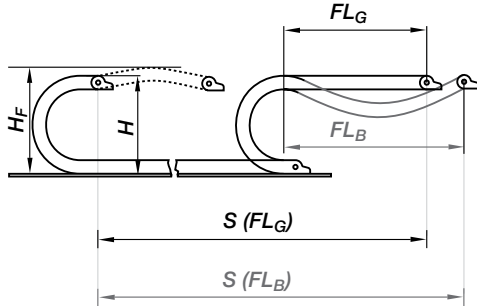
# e-chain system® E-Z chain Series E065/Z065 Installation Dimensions



E065  
Z065

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



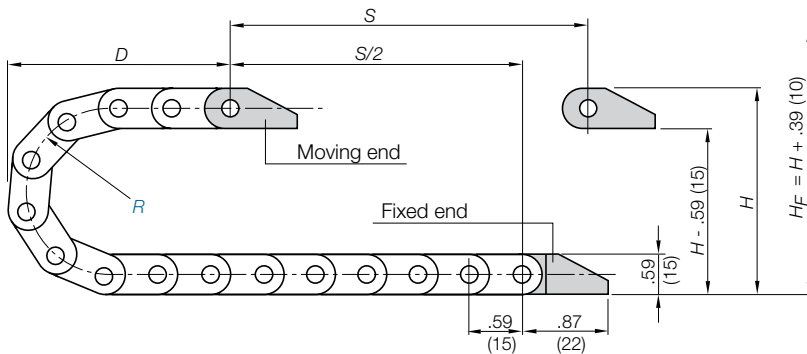
## Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Pitch per link =  $.59^\circ$  (15 mm)

Links per ft (m) = 20.34 (67)

For center mount applications:

Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	1.89 (48)	2.28 (58)	3.68 (68)
K	3.54 (90)	4.72 (120)	5.91 (150)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

\*Available in igumid NB upon request, please consult igus® for delivery time

## Technical Data



Details of material properties

► Chapter 1



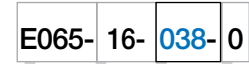
PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



Series E065  
Split crossbar along the outer radius

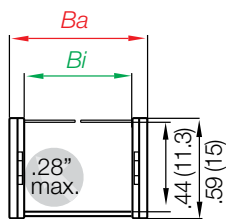


Part Number Structure

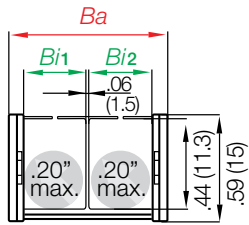


Color - Black  
Bending radius  
Width  
Series

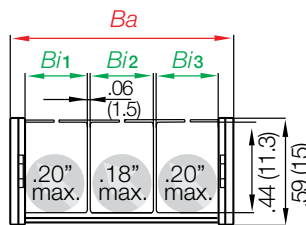
1 Chamber System



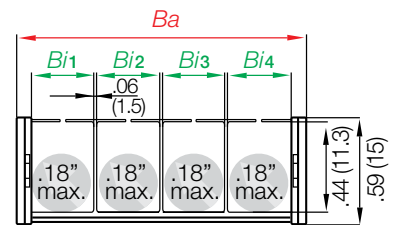
2 Chamber System



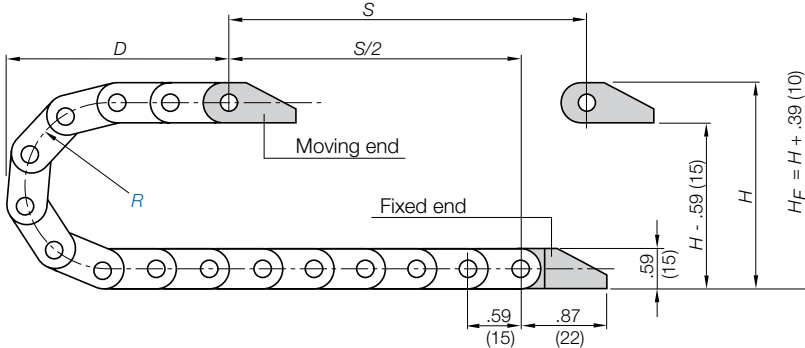
3 Chamber System



4 Chamber System



Supplement part number with required radius. Example: E065-16-038-0  
Pitch: .59 in. (15 mm) per link links/ft (m) = 20.34 (67)



Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
1 Chamber System			
E065-16- <input type="text"/> -0*	.63 (16)	.98 (24.8)	≈ 0.11 (0.17)
2 Chamber System			
E065-2/9- <input type="text"/> -0*	.35/.35 (9/9)	1.15 (29.3)	≈ 0.13 (0.19)
3 Chamber System			
E065-3/9- <input type="text"/> -0*	.35/.35/.35 (9/9/9)	1.55 (39.3)	≈ 0.15 (0.22)
4 Chamber System			
E065-4/9- <input type="text"/> -0*	.35/.35/.35/.35 (9/9/9/9)	1.94 (49.3)	≈ 0.17 (0.25)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: E065-16-038-0

R	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	1.89 (48)	2.28 (58)	3.68 (68)
K	3.54 (90)	4.72 (120)	5.91 (150)

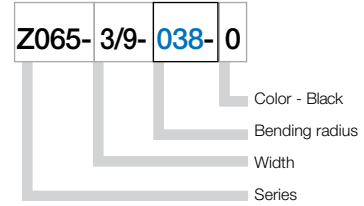
\* Crossbars do not overlap. There is a gap of .10" (2.5mm)

Series Z065

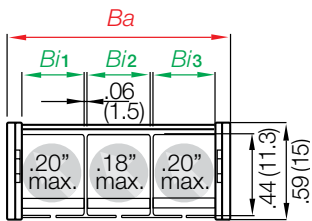
Split crossbar along the inner radius



Part Number Structure

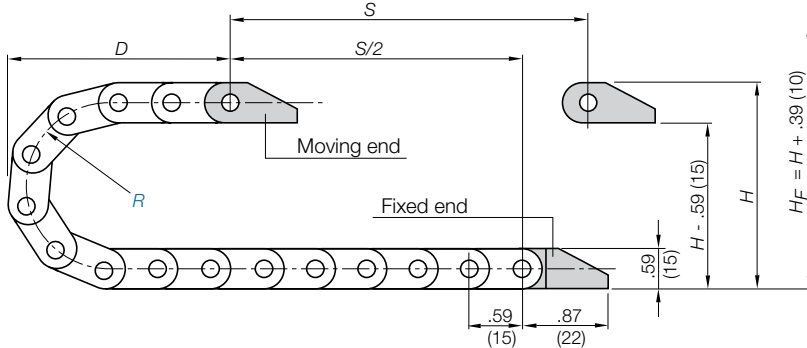


3 Chamber System



Supplement part number with required radius. Example: Z065-3/9-038-0

Pitch: 2.20 in. (56 mm) per link links/ft (m) = 5.49 (18)



Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
Z065-3/9- <input type="text"/> -0	.35/.35/.35 (9/9/9)	1.55 (39.3)	≈ 0.15 (0.22)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: Z065-3/9-038-0

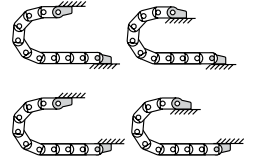
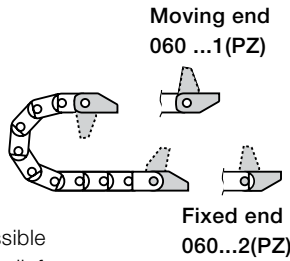
	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	1.89 (48)	2.28 (58)	3.68 (68)
K	3.54 (90)	4.72 (120)	5.91 (150)





**Polymer, one-piece**

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with integrated strain relief tiewrap plates

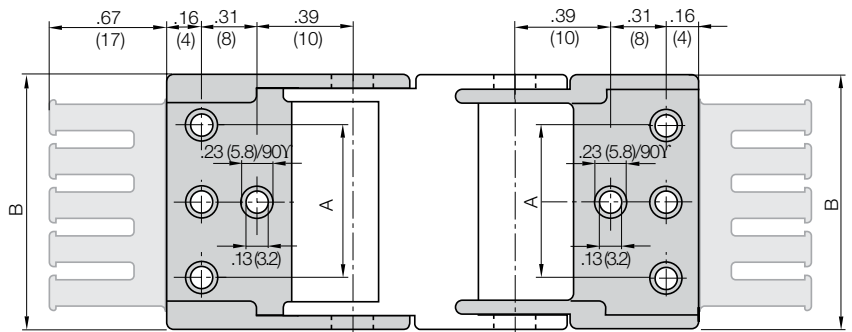
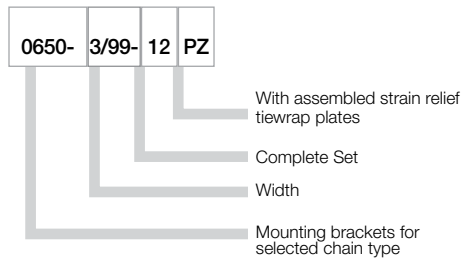


Possible installation configurations -

**Dimensions and order configurations**

Strain relief is possible on the moving end and/or the fixed end.

**Part Number Structure**



**Full set, for both ends:**

0650-3/9-12 PZ Full set, each part with pin/bore

**Single-part order:**

0650-3/9-1 PZ Mounting bracket with bore

0650-3/9-2 PZ Mounting bracket with pin

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimensions A		Dimensions B		Number of Teeth
			in.	(mm)	in.	(mm)	
E065-16-	0650-16-12PZ	0650-16-12	—	—	.89	(22.5)	2
E065-2/9	0650-2/9-12PZ	0650-2/9-12	—	—	1.06	(27)	2
E065/Z065-3/9	0650-3/9-12PZ	0650-3/9-12	.87	(22)	1.46	(37)	3
E065-4/9	0650-4/9-12PZ	0650-4/9-12	1.26	(32)	1.85	(47)	4

**Additional Accessories**



**Quicksnap** - the complete, detachable mounting unit, upon request



**Quickfix** - mounting bracket with dowel, upon request

e-chain system® E-Z chain  
Series E065/Z065

Series

igus®  
e-chain system®

Telephone 1-800-521-2747

Internet: [igus.com](http://igus.com)  
email: [sales@igus.com](mailto:sales@igus.com)  
QuickSpec: [igus.com/quickspec](http://igus.com/quickspec)



Price Index



Series E08/Z08

Special Features / Options



IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request



Flammability Class  
VDE 0304 IIC UL94 V2



Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

Assembly Tips



Just push the cables into the e-chain  
using your thumb

Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- "Z" Series is unsuitable for gliding applications  
► Series 09 Zipper

Features & Benefits

- 1 Cable-friendly interior
- 2 Small pitch for low-noise and smooth operation
- 3 Lightweight
- 4 Patented push button design holds the links together
- 5 Integrated strain relief option
- 6 Very easy to fill
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius
- 9 Limited torsion tolerance



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E08-30-038-0

e-chain®

1 Set 080-30-12PZ

Mounting Bracket

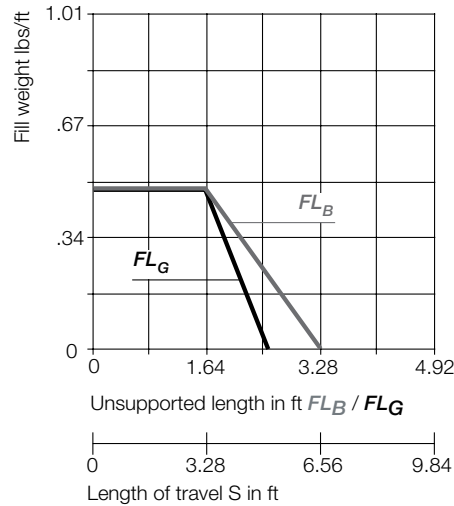
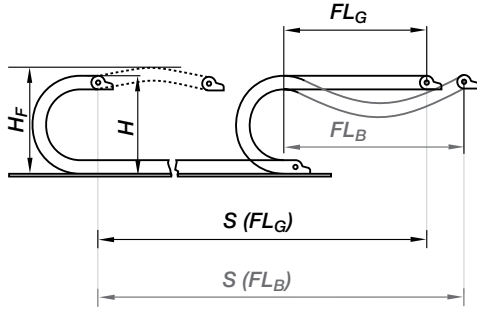
# e-chain system® E-Z chain Series E08/Z08 Installation Dimensions



E08  
Z08

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



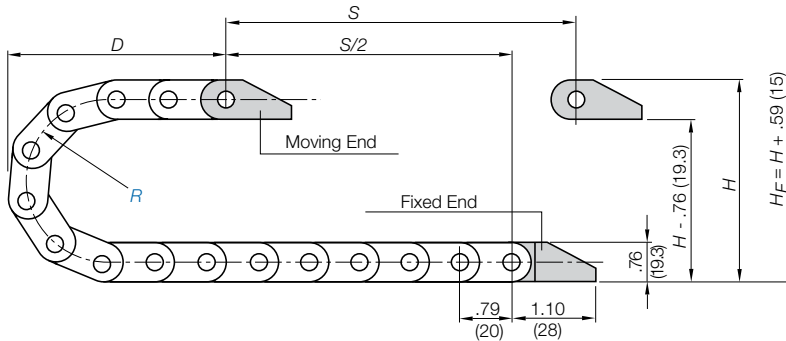
## Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Pitch per link: = .79" (20 mm)  
Links per ft (m): = 15.24 (50)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .59$  in. (15 mm) (with .20 lbs/ft (0.3 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)
H	2.95 (75)	3.74 (95)	4.53 (115)
D	2.68 (68)	3.07 (78)	3.46 (88)
K	5.12 (130)	6.30 (160)	7.68 (195)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

## Technical Data



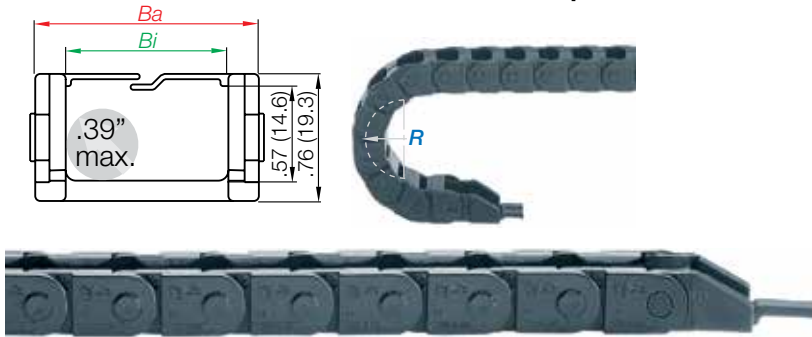
Details of material properties

► Chapter 1

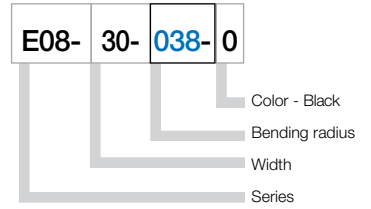
PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



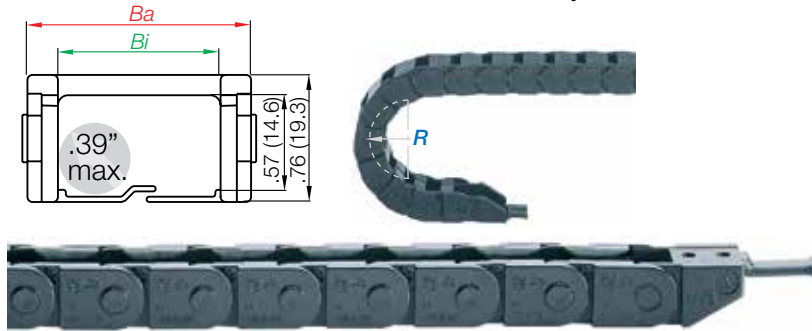
Series E08 - Split crossbar along the outer radius



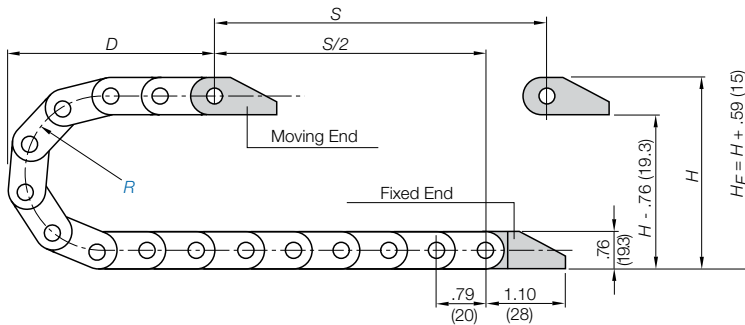
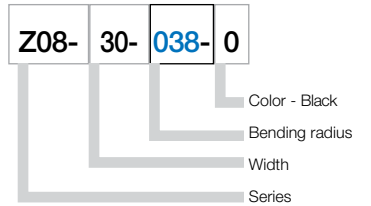
Part Number Structure



Series Z08 - Split crossbar along the inner radius



Part Number Structure



Supplement part number with required radius. Example: E08-10-038-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number			Bi	Ba	Weight
Split Crossbar	Split Crossbar		in. (mm)	in. (mm)	lbs/ft (kg/m)
Outer Radius	Inner Radius				
E08-10-	Z08-10-	<input type="checkbox"/> -0	.39 (10)	.72 (18.2)	≈ 0.14 (0.21)
E08-16-	Z08-16-	<input type="checkbox"/> -0	.63 (16)	.95 (24.2)	≈ 0.16 (0.24)
E08-20-	Z08-20-	<input type="checkbox"/> -0	.79 (20)	1.11 (28.2)	≈ 0.17 (0.25)
E08-30-	Z08-30-	<input type="checkbox"/> -0	1.18 (30)	1.50 (38.2)	≈ 0.19 (0.28)
E08-40-	Z08-40-	<input type="checkbox"/> -0	1.57 (40)	1.90 (48.2)	≈ 0.21 (0.31)
E08-50-	Z08-50-	<input type="checkbox"/> -0	1.97 (50)	2.29 (58.2)	≈ 0.25 (0.37)

Choose from the radii below for all of the above sizes  
**Radius (mm)** Example: E08-10-038-0

	028	038	048
R	1.10 (28)	1.50 (38)	1.89 (48)
H	2.95 (75)	3.74 (95)	4.53 (115)
D	2.68 (68)	3.07 (78)	3.46 (88)
K	5.12 (130)	6.30 (160)	7.68 (195)

0=Standard color black. For other colors see Chapter 1



# e-chain system® E-Z chain Series E08/Z08 Mounting Brackets

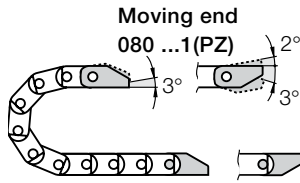


E08  
Z08

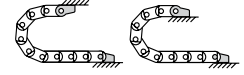


## Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without integrated strain relief tiwrap plates



Fixed end  
080...2(PZ)



Possible installation configurations -

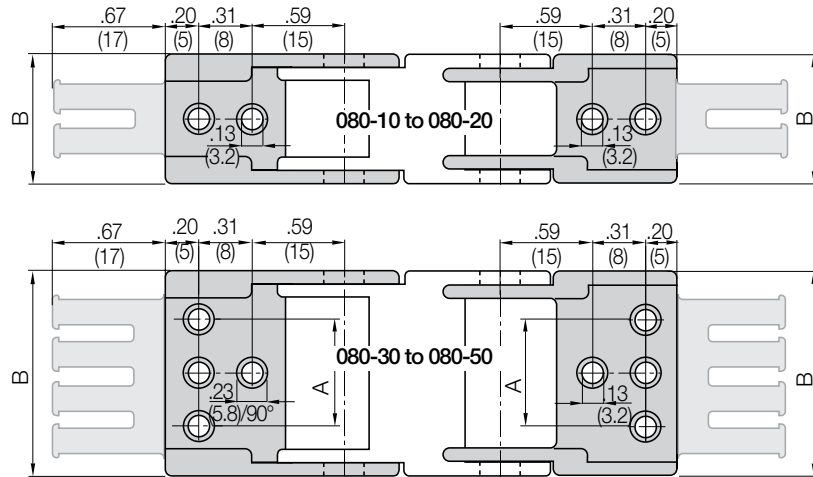
## Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

### Part Number Structure



- With assembled strain relief tiwrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



### Full set, for both ends:

080-20-12-PZ Full set, each part with pin/bore

### Single-part order:

080-20-1-PZ Mounting bracket with bore

080-20-2-PZ Mounting bracket with pin

080-10-12 - 080-20-12: Center bores only

080-30-12 - 080-50-12: Outer bores only

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A		Dimensions B		Number of Teeth
			in.	(mm)	in.	(mm)	
E08/Z08-10	080-10-12PZ	080-10-12	—	—	.72	(18.2)	1
E08/Z08-16	080-16-12PZ	080-16-12	—	—	.95	(24.2)	2
E08/Z08-20	080-20-12PZ	080-20-12	—	—	1.11	(28.2)	2
E08/Z08-30	080-30-12PZ	080-30-12	.87	(22)	1.50	(38.2)	3
E08/Z08-40	080-40-12PZ	080-40-12	1.26	(32)	1.90	(48.2)	4
E08/Z08-50	080-50-12PZ	080-50-12	1.65	(42)	2.29	(58.2)	5

## Additional Accessories



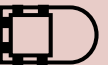
**Quicksnap** - the complete, detachable mounting unit, upon request

### Part No.

080-20-QS

080-30-QS

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



E14  
Z14



# e-chain system® E-Z chain Series E14/Z14




### Price Index




Series E14/Z14

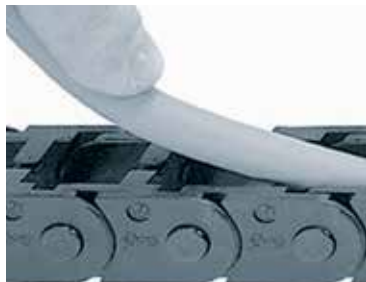
### Special Features / Options

 IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request

 Flammability Class  
VDE 0304 IIC UL94 V2

 IPA Qualification Certificate: ESD  
Classification Level 1 (for Series  
E14-3-038). Special equipment:  
Electrically conductive ESD/ATEX  
version upon request

### Assembly Tips



Just push the cables into the e-chain  
using your thumb

### Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- "Z" Series is unsuitable for gliding applications  
➤ Series B15 E2 Mini
- If a long unsupported length is required  
➤ Series B15 E2 Mini

### Features & Benefits


- 1 Small pitch for low-noise and smooth operation
- 2 Cable-friendly interior
- 3 Limited torsion tolerance
- 4 Very easy to fill
- 5 Integrated strain relief option
- 6 Patented push button design holds the links together
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius



### Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E14-3-038-0

 e-chain®

1 Set 114-3-12PZ

 Mounting Bracket

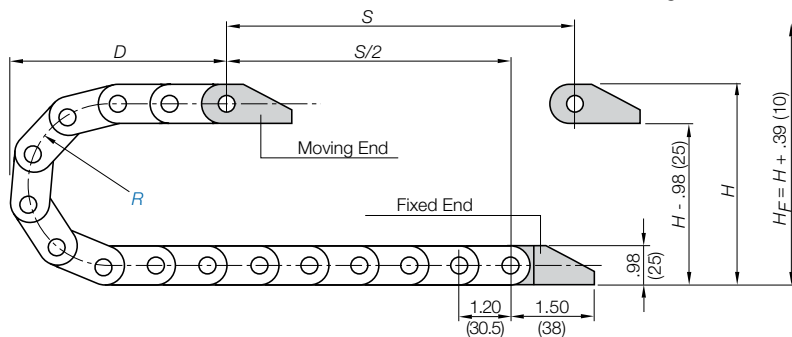
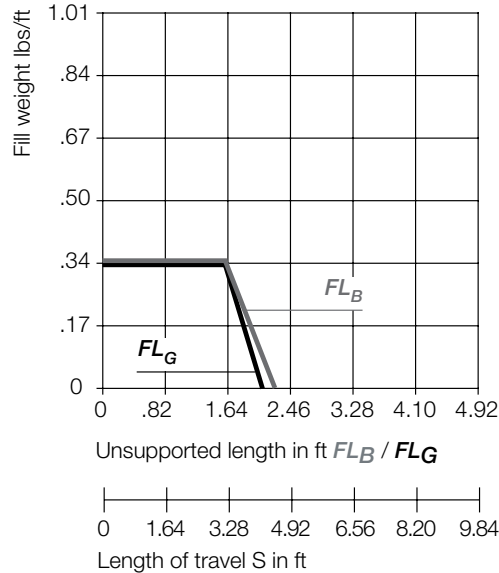
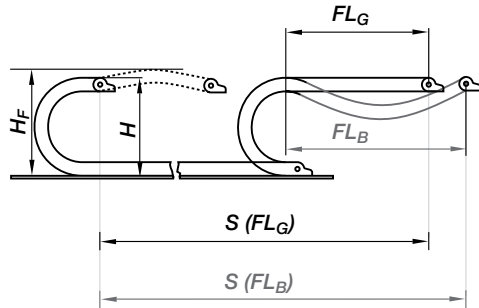
# e-chain system® E-Z chain Series E14/Z14 Installation Dimensions



E14  
Z14

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
Links per ft (m) = 10.06 (33)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)
H	3.19 (81)	3.98 (101)	4.76 (121)	6.89 (175)	8.86 (225)	10.83 (275)
D	3.35 (86)	3.78 (96)	4.17 (106)	5.24 (133)	6.22 (158)	7.20 (183)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	17.91 (455)

## Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

\*Available in igumid NB upon request, please consult igus® for delivery time

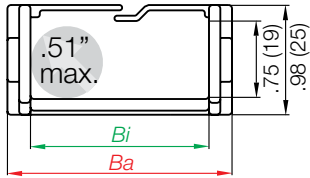
## Technical Data



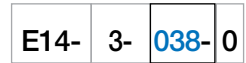
Details of material properties

► Chapter 1

Series E14 - Split crossbar along the outer radius



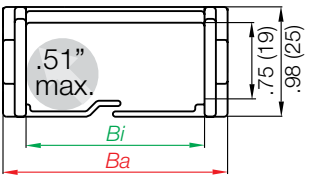
Part Number Structure



Color - Black  
Bending radius  
Width  
Series



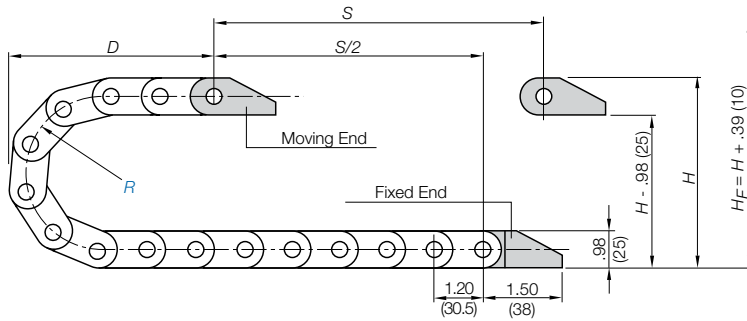
Series Z14 - Split crossbar along the inner radius



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



Supplement part number with required radius. Example: E14-3--0

Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number

Split Crossbar	Split Crossbar			Bi	Ba	Weight
Outer Radius	Inner Radius			in. (mm)	in. (mm)	lbs/ft (kg/m)
E14-1-	Z14-1-	<input type="text" value=""/>	-0	.59 (15)	1.06 (27)	≈ 0.21 (0.31)
E14-2-	Z14-2-	<input type="text" value=""/>	-0	.98 (25)	1.46 (37)	≈ 0.22 (0.32)
E14-3-	Z14-3-	<input type="text" value=""/>	-0	1.50 (38)	1.97 (50)	≈ 0.27 (0.40)
E14-4-	Z14-4-	<input type="text" value=""/>	-0	1.97 (50)	2.44 (62)	≈ 0.30 (0.44)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: E14-3--0

	<input type="text" value="028"/>	<input type="text" value="038"/>	<input type="text" value="048"/>	<input type="text" value="075"/>	<input type="text" value="100"/>	<input type="text" value="125"/>
R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)
H	3.19 (81)	3.98 (101)	4.76 (121)	6.89 (175)	8.86 (225)	10.83 (275)
D	3.35 (86)	3.78 (96)	4.17 (106)	5.24 (133)	6.22 (158)	7.20 (183)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	17.91 (455)

0=Standard color black. For other colors see Chapter 1

# e-chain system® E-Z chain Series E14/Z14 Mounting Brackets

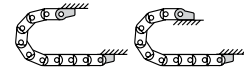
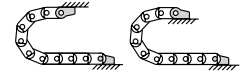
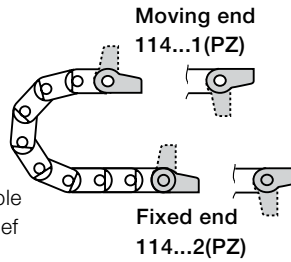


E14  
Z14



## Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates



Possible installation configurations -

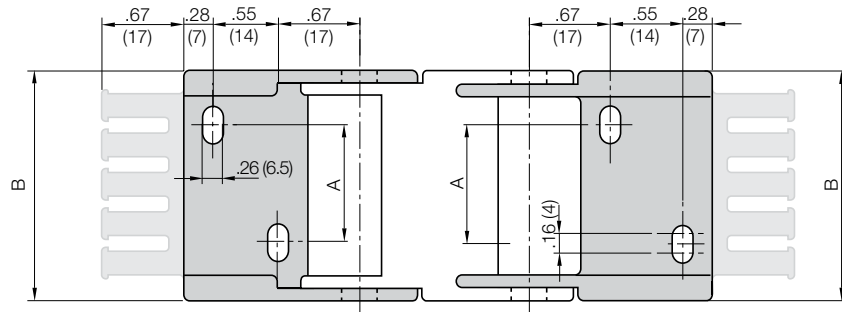
## Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

### Part Number Structure

114-	20-	12	P	PZ
------	-----	----	---	----

- With assembled strain relief tiewrap plates
- Without assembled strain relief tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



Full set, for both ends:

114- 20- 12 PZ

Full set, each part with pin/bore + tiewrap plate

Single-part order:

114- 20- 1 PZ

Mounting bracket with bore + tiewrap plate

114- 20- 2 PZ

Mounting bracket with pin + tiewrap plate

Chain Type	Part No.	Part No.	Dimension A		Dimensions B		Number of Teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	in.	(mm)	
E14/Z14-1	114-1-12PZ	114-1-12P	—	—	1.04	(26.3)	2
E14/Z14-2	114-2-12PZ	114-2-12P	.39	(10)	1.43	(36.3)	3
E14/Z14-3	114-3-12PZ	114-3-12P	.91	(23)	1.94	(49.3)	4
E14/Z14-4	114-4-12PZ	114-4-12P	1.38	(35)	2.41	(61.3)	5

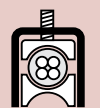
## Additional Accessories



**Quickfix** - mounting bracket with dowel, upon request

Part No.  
114-3-12QZ

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



E200  
Z200



# e-chain system® E-Z chain Series E200/Z200




### Price Index




Series E200/Z200

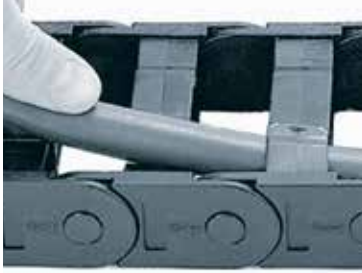
### Special Features / Options

 IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request

 Flammability Class  
VDE 0304 IIC UL94 V2

 Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

### Assembly Tips



Just push the cables into the e-chain  
using your thumb

### Other Installation Methods

- Vertical, hanging ≤ 32.8 ft (10 m)
- Vertical, standing ≤ 4.92 ft (1.5 m)
- Side-mounted, un\_supp. ≤ 1.64 ft (0.5 m)
- Rotary requires further calculation

### Usage Guidelines



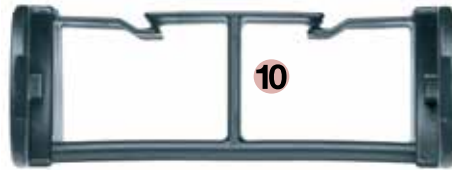
- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a long unsupported length is required
  - Series 2400/2500 E2/000
- If single extrusion crossbars are required
  - Series 2400/2500 E2/000

### Features & Benefits


- 1 Mounting bracket with integrated strain relief
- 2 Large pins for long service life
- 3 Patented push button design holds the links together
- 4 Limited torsion tolerance
- 5 "E" Series features split crossbar along the outer radius
- 6 Dirt-repellant exterior
- 7 Cable-friendly interior
- 8 "Z" Series features split crossbar along the inner radius
- 9 Very easy to fill - cables only have to be pushed in
- 10 1- or 2-chamber system available




### Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E200-05-100-0

 e-chain®

1 Set 2050-34PZB

 Mounting Bracket

# e-chain system® E-Z chain

## Series E200/Z200

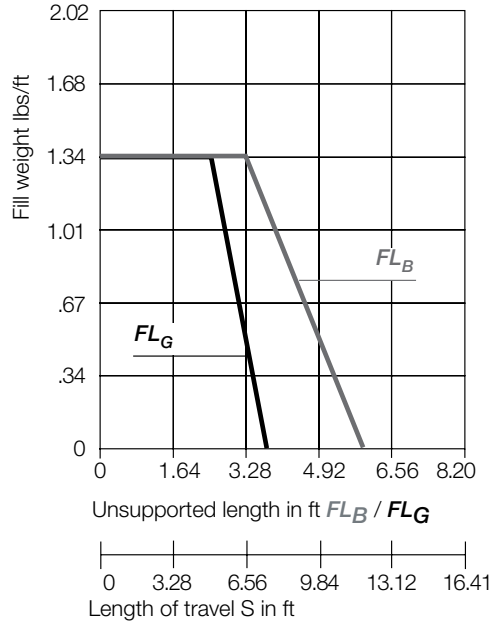
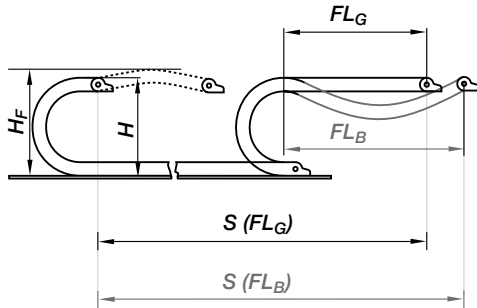
### Installation Dimensions



E200  
Z200

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



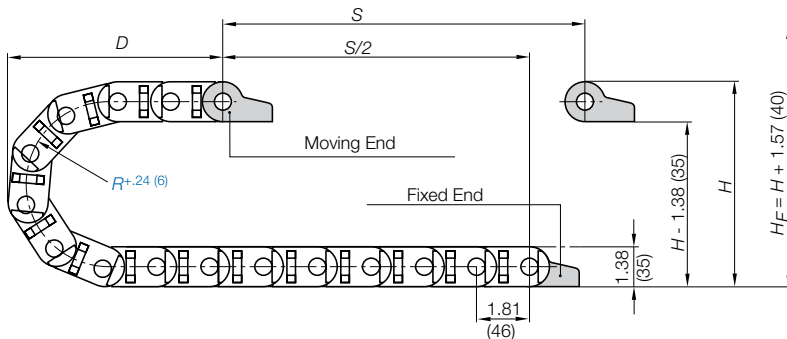
#### Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height



Pitch per link: = 1.81" (46 mm)  
 Links per ft (m): = 6.71 (22)  
 For center mount applications:  
 Chain length =  $S/2 + K$

The required clearance height:  $H_f = H + 1.57$  in. (40 mm) (with 1.68 lbs/ft (2.5 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	2.16 (055)	2.95 (075)	3.94 (100)	5.91 (150)	7.87 (200)
$H^{+4}$	5.71 (145)	7.28 (185)	9.25 (235)	13.19 (335)	17.12 (435)
D	5.59 (142)	6.38 (162)	7.36 (187)	9.33 (237)	11.30 (287)
K	10.43 (265)	12.99 (330)	16.14 (410)	22.24 (565)	28.54 (725)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

\*Available in igumid NB upon request, please consult igus® for delivery time

#### Technical Data



Details of material properties

► Chapter 1



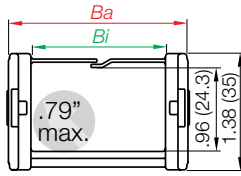
PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



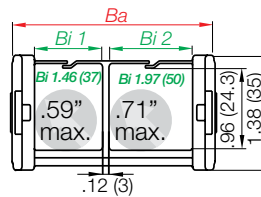
**Series E200**  
Split crossbar along the outer radius



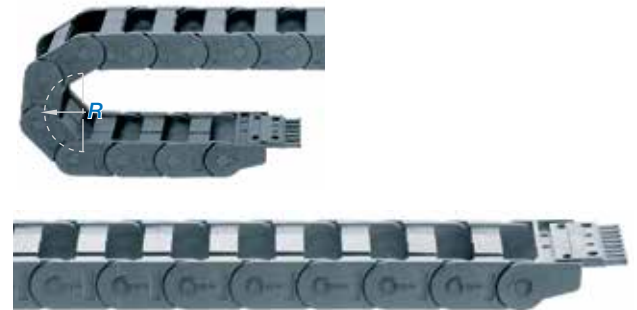
**Single Chamber System**



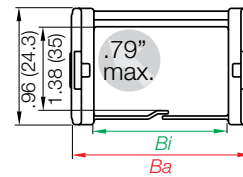
**2 Chamber System**  
1 chamber from each width is shown  
Actual carrier will have 2 chambers of the same size.



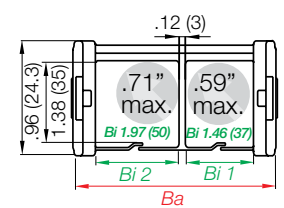
**Series Z200**  
Split crossbar along the inner radius



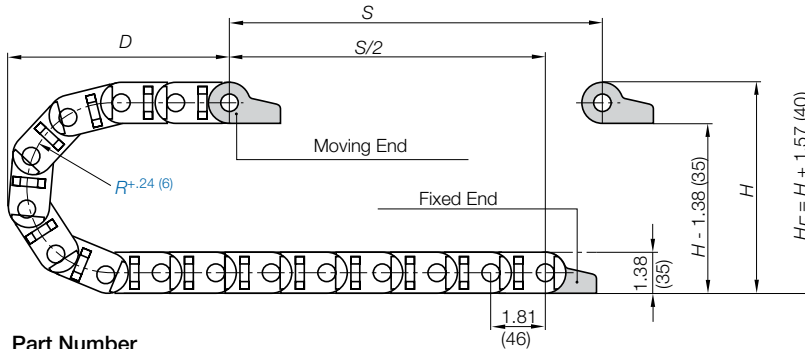
**Single Chamber System**



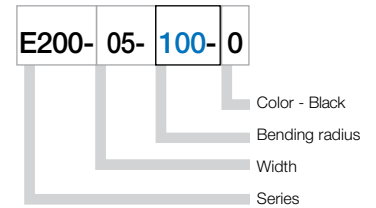
**2 Chamber System**  
1 chamber from each width is shown  
Actual carrier will have 2 chambers of the same size.



Supplement part number with required radius. Example: E200-05-100-0  
Pitch: 1.81 in. (46 mm) per link links/ft (m) = 6.71 (22)



**Part Number Structure**



**Part Number**  
Single Chamber System

Split Crossbar	Split Crossbar		Bi	Ba	Weight
Outer radius	Inner Radius		in. (mm)	in. (mm)	lbs/ft (kg/m)
E200-05-	Z200-05-	<input type="text"/> -0	2.24 (57)	2.93 (74.4)	≈ 0.47 (0.70)

**Part Number**  
2 Chamber System

Split Crossbar	Split Crossbar		Bi 1	Bi 2	Ba	Weight
Outer radius	Inner Radius		in. (mm)	in. (mm)	in. (mm)	lbs/ft (kg/m)
E200-2/35-	Z200-2/35-	<input type="text"/> -0	1.46 (37)	1.46 (37)	3.72 (94.4)	≈ 0.53 (0.79)
E200-2/50-	Z200-2/50-	<input type="text"/> -0	1.97 (50)	1.97 (50)	4.74 (120.4)	≈ 0.55 (0.82)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: E200-05-100-0

	055	075	100	150	200
R	2.16 (055)	2.95 (075)	3.94 (100)	5.91 (150)	7.87 (200)
H <sup>+</sup>	5.71 (145)	7.28 (185)	9.25 (235)	13.19 (335)	17.12 (435)
D	5.59 (142)	6.38 (162)	7.36 (187)	9.33 (237)	11.30 (287)
K	10.43 (265)	12.99 (330)	16.14 (410)	22.24 (565)	28.54 (725)

0=Standard color black. For other colors see Chapter 1



# e-chain system® E-Z chain

## Series E200/Z200

### Mounting Brackets

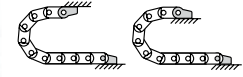
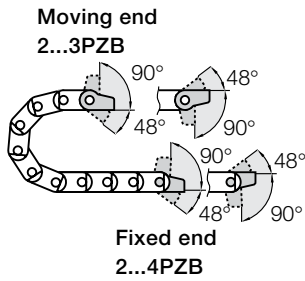


E200  
Z200

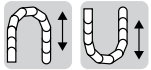


#### Option 1: pivoting

- Short and long travels
- Space-restricted conditions
- Corrosion resistant

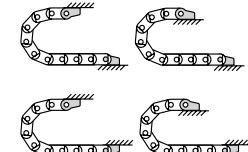
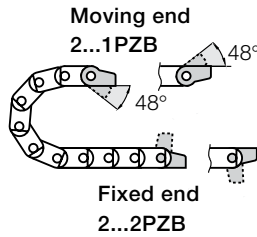


Possible installation configurations -



#### Option 2: locking

- Vertical hanging/standing travels
- High accelerations
- Corrosion resistant



Possible installation configurations -

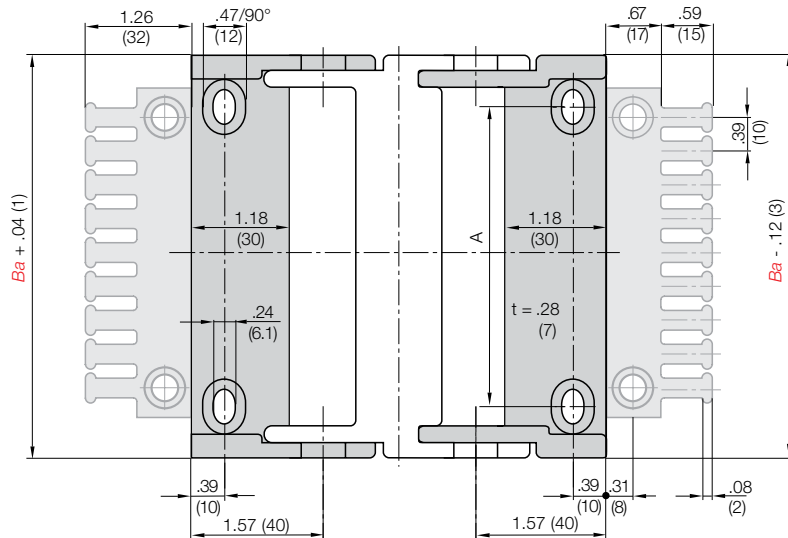
### Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

#### Part Number Structure



- With 10 cable tiewraps
- With tiewrap plates
- Without tiewrap plates
- Complete Set  
34 = Pivoting  
12 = Locking
- Mounting brackets for selected chain type



#### Full set, for both ends:

2050- 34 PZB Full set, each part with pin/bore + tiewrap plate

#### Single-part order:

2050- 3 PZB Mounting bracket with bore + tiewrap plate

2050- 4 PZB Mounting bracket with pin + tiewrap plate

For Chain Type	Part No. Full Set with Tiewrap Plate	Part No. Full Set with Tiewrap Plate + 10 cable ties	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)	Number of teeth
E200/Z200-05	2050- <input type="checkbox"/> PZB	2050- <input type="checkbox"/> PZBK1	2050- <input type="checkbox"/> PZ	1.73 (44)	6
E200/Z200-2/35	2070- <input type="checkbox"/> PZB	2070- <input type="checkbox"/> PZBK1	2070- <input type="checkbox"/> PZ	2.52 (64)	8
E200/Z200-2/50	2100- <input type="checkbox"/> PZB	2100- <input type="checkbox"/> PZBK1	2100- <input type="checkbox"/> PZ	3.54 (90)	10

34 or 12

For pivoting brackets choose  34  
For locking brackets choose  12  
Example: 2050-  34 PZB

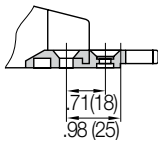
PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



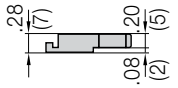
**Strain relief for polymer mounting brackets (pivoting or locking)**

The strain relief tiewrap plates can be snapped directly onto the mounting bracket. After bolting the mounting brackets to the machine, the strain relief tiewrap plates are firmly connected to the base. There is no need to bolt them on separately. Cable tiewraps secured to the cable and the tiewrap plate (teeth) provide proper strain relief and save time.

**Tiewrap Plates**



Shown assembled



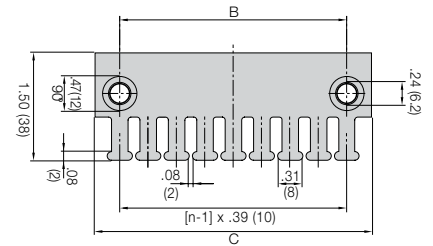
Single tiewrap plate



**Option 1:  
Tiewrap plates as an individual part**

Available as an individual component, can be fixed onto a mounting bracket.

Tiewrap Plates	n Number of Teeth	Dimension C	Dimension B
2050-ZB	6	2.36 (60)	1.57 (40)
2070-ZB	8	3.15 (80)	2.36 (60)
2100-ZB	10	3.94 (100)	3.15 (80)



For more information please refer to strain relief section of Chapter 10

**Strain relief for steel mounting brackets**

Clip-on connection is not possible with steel mounting brackets. In this case, the tiewrap plates must be bolted directly into separate bore holes in front of the mounting bracket. Alternatively the tiewrap plates 20XX-ZB can be also used here. **Details chapter 10**



**Cable tiewraps as individual parts**

Cable tiewraps 100 pieces/bag	Width x Length		Maximum Ø		Tensile Strength	
	in.	(mm)	in.	(mm)	lbs	(N)
CFB-001	.19 x 5.91	(4.8 x 150)	1.42	(36)	50	(222)



**Option 2:  
Clip-on Tiewrap plates for opening crossbars**

Clip-on tiewrap plates are also available as an attachment to opening crossbars. They can be positioned at any point along the e-chain®.

Part No.	Number of Teeth	Width of Strain Relief in. (mm)
2050-Z	6	2.44 (62)

For more information please refer to strain relief section of Chapter 10

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



E16  
Z16



# e-chain system® E-Z chain Series E16/Z16



## Price Index



Series E16/Z16

## Special Features / Options



IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request



Flammability Class  
VDE 0304 IIC UL94 V2



Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

## Assembly Tips



Just push the cables into the e-chain  
using your thumb

## Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a long unsupported length is required  
➤ Series 2600/2700 E2 Medium
- If an e-chain with a high locking crossbar is needed  
➤ Series 2600/2700 E2 Medium

## Features & Benefits

- 1 Cable-friendly interior
- 2 Limited torsion tolerance
- 3 Small pitch for low-noise and smooth operation
- 4 Very easy to fill - cables only have to be pushed in
- 5 Mounting bracket with integrated strain relief
- 6 Patented push button design holds the links together
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E16-3-060-0

e-chain®

1 Set 117-3-12PZ

Mounting Bracket

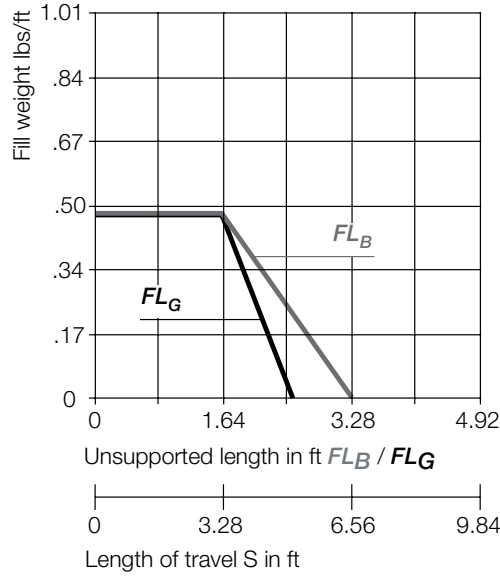
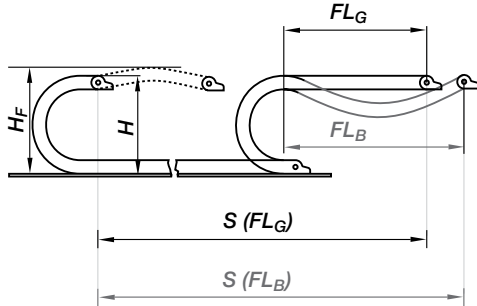
# e-chain system® E-Z chain Series E16/Z16 Installation Dimensions



E16  
Z16

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



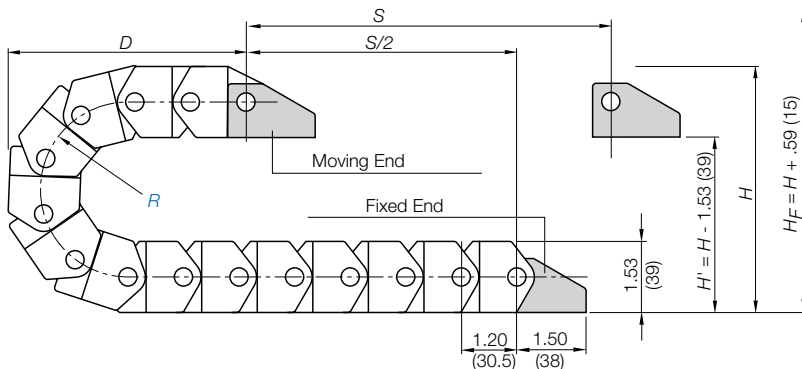
## Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Pitch per link = 1.20" (30.5 mm)  
Links per ft (m) = 10.06 (33)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .59$  in. (15 mm) (with .20 lbs/ft (0.3 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	1.57 (040)*	2.36 (060)	2.95 (075)	3.94 (100)	4.92 (125**)
H	4.69 (119)	6.26 (159)	7.44 (189)	9.41 (239)	11.38 (289)
D	4.13 (105)	4.92 (125)	5.51 (140)	6.50 (165)	7.48 (190)
K	7.48 (190)	9.84 (250)	11.81 (300)	14.96 (380)	17.91 (455)

\*This radius is only available for the E16-2, Z16-3, Z16-4 Series  
\*\* This radius is only available for the E16-3, E16-5, E16-6, E16-7, Z16-2 and Z16-4

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

\*Available in igumid NB upon request, please consult igus® for delivery time

## Technical Data

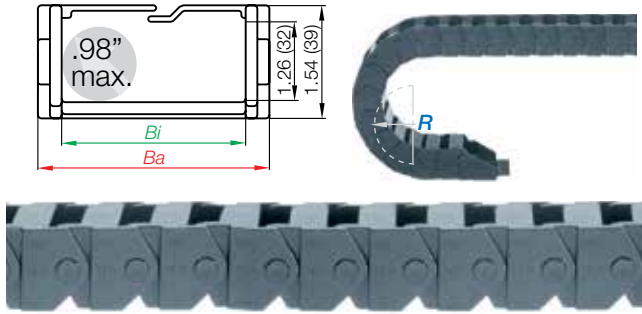


Details of material properties

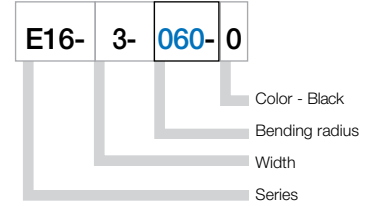
► Chapter 1

STANDARD

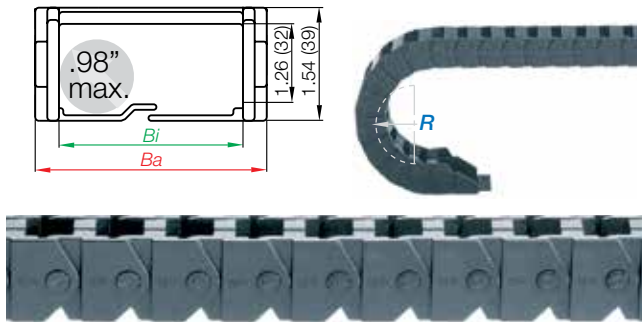
Series E16 - Split crossbar along the outer radius



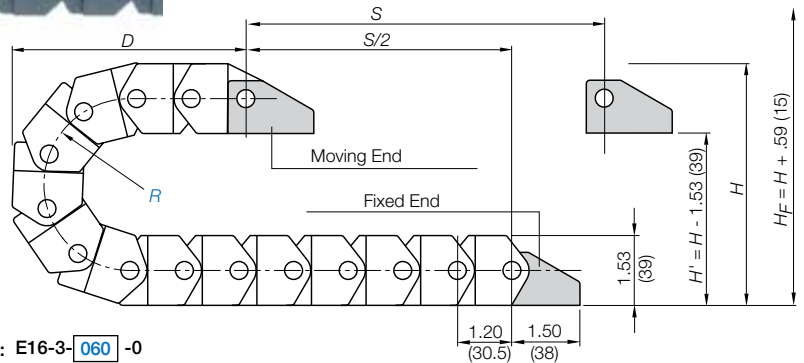
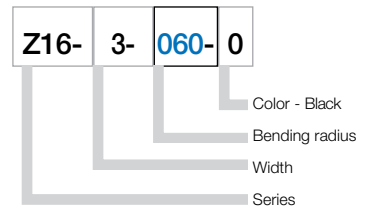
Part Number Structure



Series Z16 - Split crossbar along the inner radius



Part Number Structure



Supplement part number with required radius. Example: E16-3-060-0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number			<i>Bi</i>	<i>Ba</i>	Weight
Split Crossbar	Split Crossbar		in. (mm)	in. (mm)	lbs/ft (kg/m)
Outer radius	Inner radius				
E16-2-	Z16-2-	<input type="text"/> -0	.91 (23)	1.48 (37.5)	≈ 0.34 (0.51)
E16-3-	Z16-3-	<input type="text"/> -0	1.42 (36)	1.99 (50.5)	≈ 0.38 (0.57)
E16-4-	Z16-4-	<input type="text"/> -0	1.89 (48)	2.46 (62.5)	≈ 0.42 (0.62)
E16-5-	Z16-5-	<input type="text"/> -0	2.48 (63)	3.09 (78.5)	≈ 0.50 (0.75)
E16-6-	Z16-6-	<input type="text"/> -0	3.15 (80)	3.76 (95.5)	≈ 0.56 (0.83)
E16-7-	Z16-7-	<input type="text"/> -0	3.94 (100)	4.54 (115.3)	≈ 0.61 (0.91)

Choose from the radii below for all of the above sizes  
*Radius* (mm) Example: E16-3-060-0

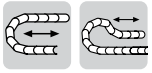
	<span style="border: 1px solid black; padding: 2px;">040*</span>	<span style="border: 1px solid black; padding: 2px;">060</span>	<span style="border: 1px solid black; padding: 2px;">075</span>	<span style="border: 1px solid black; padding: 2px;">100</span>	<span style="border: 1px solid black; padding: 2px;">125**</span>
R	1.57 (040)*	2.36 (060)	2.95 (075)	3.94 (100)	4.92 (125**)
H	4.69 (119)	6.26 (159)	7.44 (189)	9.41 (239)	11.38 (289)
D	4.13 (105)	4.92 (125)	5.51 (140)	6.50 (165)	7.48 (190)
K	7.48 (190)	9.84 (250)	11.81 (300)	14.96 (380)	17.91 (455)

0=Standard color black. For other colors see Chapter 1  
\*This radius is only available for the E16-2, Z16-3, Z16-4 Series  
\*\* This radius is only available for the E16-3, E16-5, E16-6, E16-7, Z16-2 and Z16-4

# e-chain system® E-Z chain Series E16/Z16 Mounting Brackets



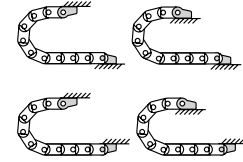
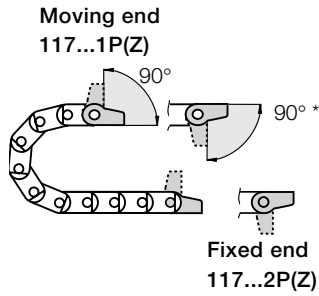
E16  
Z16



**Standard**

## Option 1: pivoting

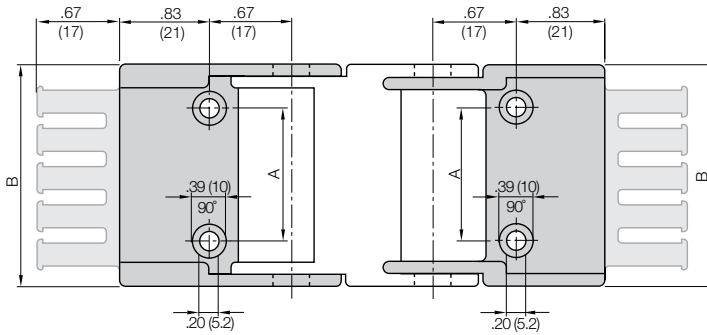
- One-piece mounting bracket
- Corrosion resistant
- Available pre-assembled
- Inner and outer attachment possible
- With or without strain relief tiwrap plates



Possible installation configurations -

## Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.



### Part Number Structure



- With tiwrap plate
- Without tiwrap plate
- Complete Set  
12 = Pivoting
- Mounting brackets for selected chain type

### Full set, for both ends:

117-2-12-PZ Full set, each part with pin/bore + tiwrap plate

### Single-part order:

117-2-1-PZ Mounting bracket with bore + tiwrap plate

117-2-2-PZ Mounting bracket with pin + tiwrap plate

For Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Number of Teeth	Dimension A in. (mm)	Dimensions B in. (mm)
E16/Z16-2	117-2-12PZ	117-2-12P	3	.47 (12)	1.40 (35.5)
E16/Z16-3	117-3-12PZ	117-3-12P	4	.98 (25)	1.91 (48.5)
E16/Z16-4	117-4-12PZ	117-4-12P	5	1.46 (37)	2.38 (60.5)
E16/Z16-5	117-5-12PZ	117-5-12P	6	1.89 (48)	2.99 (76.0)
E16/Z16-6	117-6-12PZ	117-6-12P	8	2.56 (65)	3.66 (93.0)
E16/Z16-7	117-7-12PZ	117-7-12P	10	3.35 (85)	4.45 (113.0)

## Additional Accessories

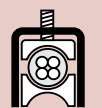


**Quicksnap** - the complete, detachable mounting unit, upon request



**Quickfix** - mounting bracket with dowel, upon request

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



E26  
Z26



# e-chain system® E-Z chain Series E26/Z26



### Price Index



Series E26/Z26

### Special Features / Options



IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request



Flammability Class  
VDE 0304 IIC UL94 V2



Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

### Assembly Tips



Just push the cables into the e-chain  
using your thumb

### Other Installation Methods

Vertical, hanging ≤ 32.8 ft (10 m)

Vertical, standing ≤ 4.92 ft (1.5 m)

Side-mounted, un\_supp. ≤ 1.64 ft (0.5 m)

Rotary requires further calculation

### Usage Guidelines



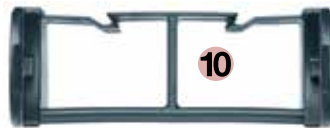
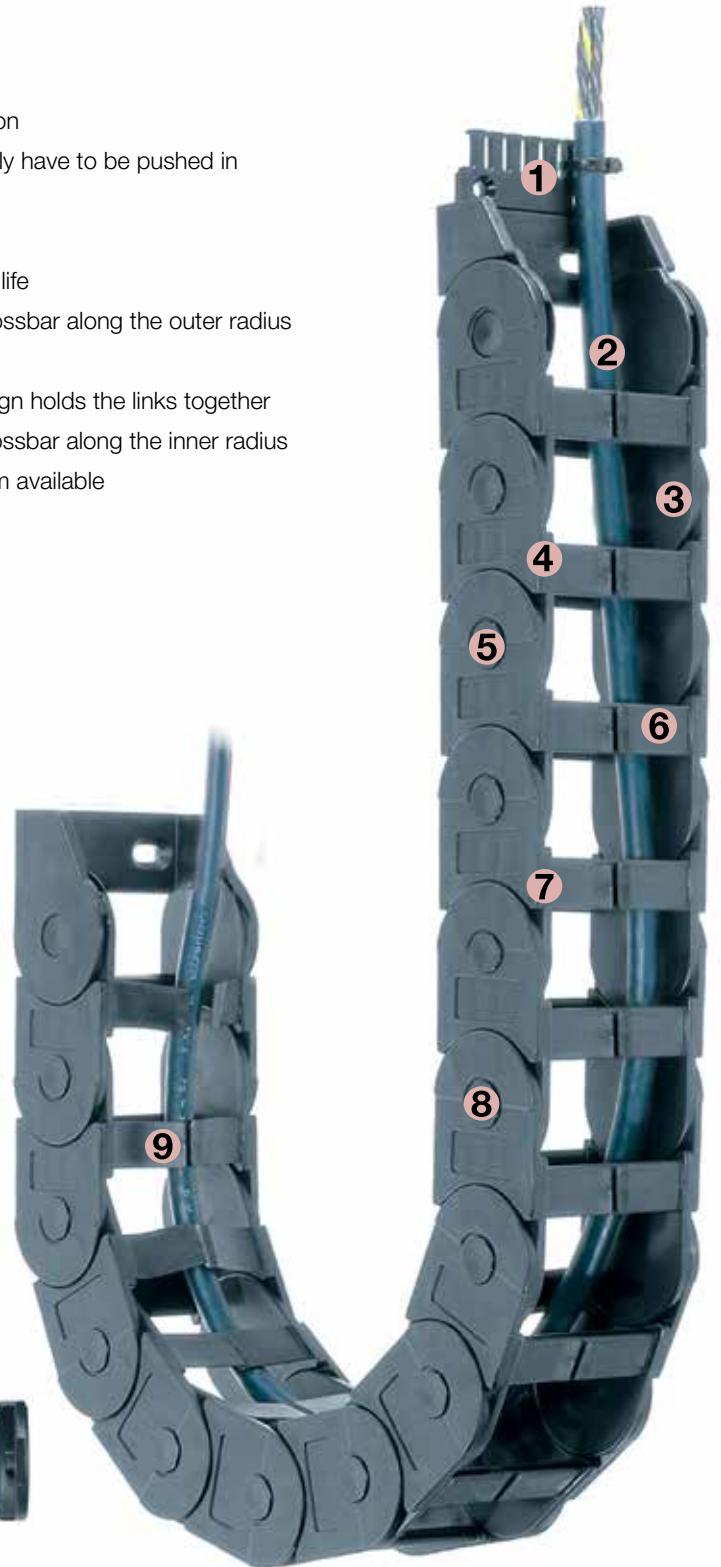
- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a long unsupported length is required  
➤ Series 2600/2700 E2/000
- If an e-chain with a high locking crossbar is needed  
➤ Series 2600/2700 E2/000

### Features & Benefits

- 1 Integrated strain relief option
- 2 Very easy to fill - cables only have to be pushed in
- 3 Cable-friendly interior
- 4 Limited torsion tolerance
- 5 Large pins for long service life
- 6 "E" Series features split crossbar along the outer radius
- 7 Dirt-repellent exterior
- 8 Patented push button design holds the links together
- 9 "Z" Series features split crossbar along the inner radius
- 10 1-, 2- or 3-chamber system available



### Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E26-07-150-0

e-chain®

1 Set 2607-34PZB

Mounting Bracket



# e-chain system® E-Z chain

## Series E26/Z26

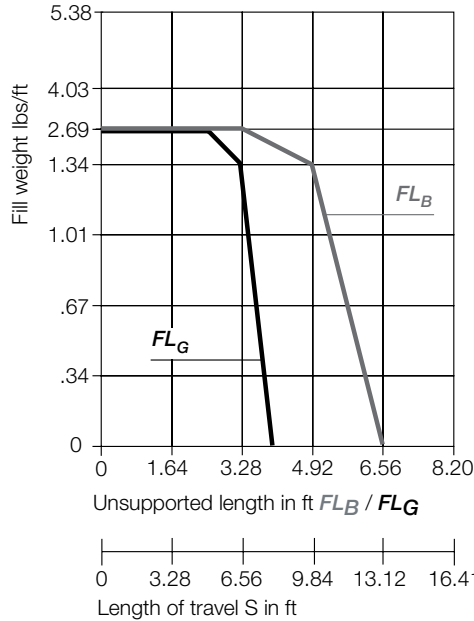
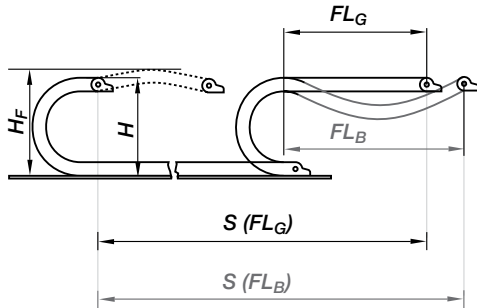
### Installation Dimensions



E26  
Z26

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



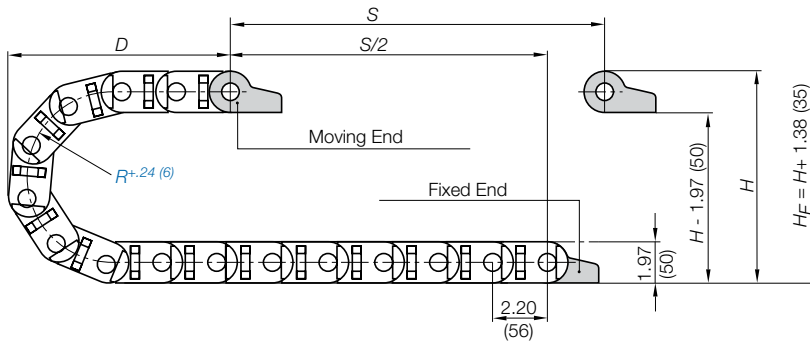
#### Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height



Pitch per link = 2.20" (56 mm)  
 Links per ft (m) = 5.49 (18)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_f = H + 1.38$  in. (35 mm) (with 1.34 lbs/ft (2.0 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)
$H^{*5}$	6.93 (176)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	21.65 (550)
D	6.77 (172)	7.24 (184)	8.23 (209)	9.21 (234)	10.20 (259)	11.18 (284)	12.17 (309)	14.13 (359)
K	12.20 (310)	13.78 (350)	16.93 (430)	19.90 (505)	23.03 (585)	26.18 (665)	29.33 (745)	35.43 (900)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

\*Available in igumid NB upon request, please consult igus® for delivery time

#### Technical Data



Details of material properties

► Chapter 1

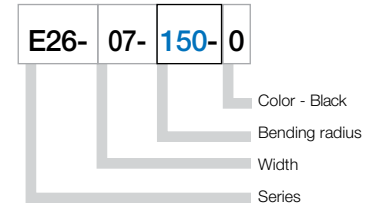
PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



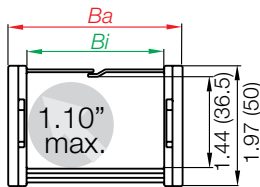
Series E26  
Split crossbar along the outer radius



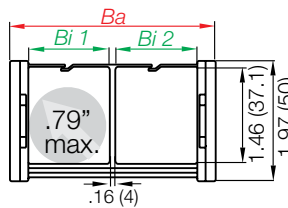
Part Number Structure



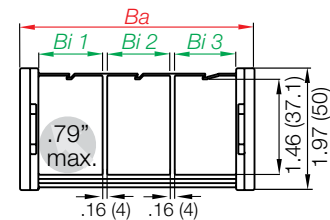
1 Chamber System



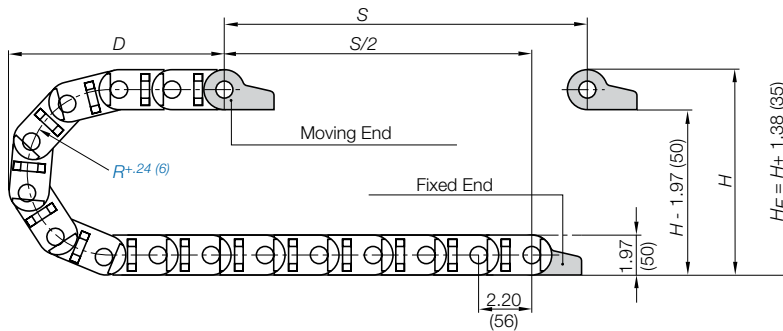
2 Chamber System



3 Chamber System



Supplement part number with required radius. Example: E26-07-150-0  
Pitch: 2.20 in. (56 mm) per link links/ft (m) = 5.49 (18)



Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
E26-07- <input type="text"/> -0	2.95 (75)	3.62 (92)	≈ 0.65 (0.96)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
E26-2/45- <input type="text"/> -0	1.89/1.89 (48/48)	4.61 (117)	≈ 0.77 (1.14)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
E26-3/45- <input type="text"/> -0	1.85/1.89/1.85 (47/48/47)	6.57 (167)	≈ 0.87 (1.30)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: E26-07-100-0

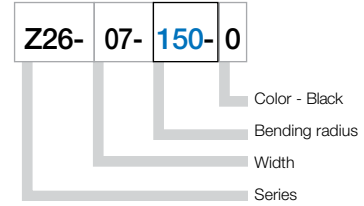
	063	075	100	125	150	175	200	250
R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)
H +5	6.93 (176)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	21.65 (550)
D	6.77 (172)	7.24 (184)	8.23 (209)	9.21 (234)	10.20 (259)	11.18 (284)	12.17 (309)	14.13 (359)
K	12.20 (310)	13.78 (350)	16.93 (430)	19.88 (505)	23.03 (585)	26.18 (665)	29.33 (745)	35.43 (900)

Series Z26

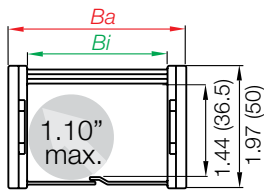
Split crossbar along the inner radius



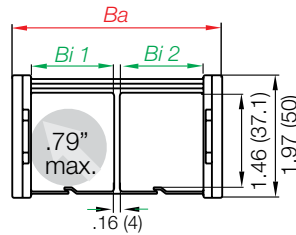
Part Number Structure



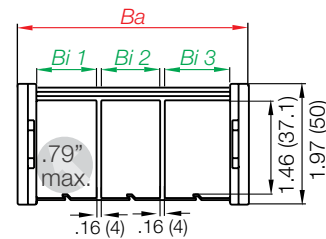
1 Chamber System



2 Chamber System

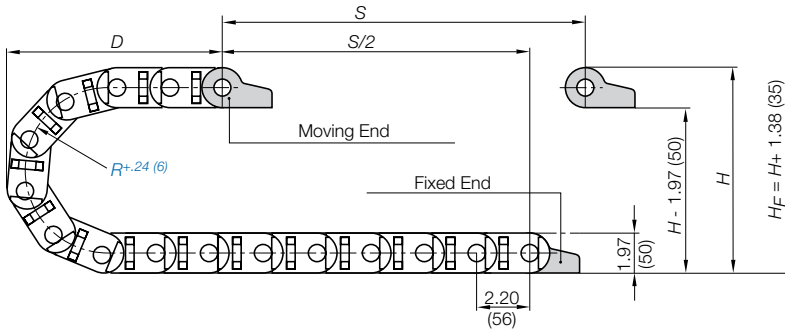


3 Chamber System



Supplement part number with required radius. Example: Z26-07-**150**-0

Pitch: 2.20 in. (56 mm) per link links/ft (m) = 5.49 (18)



Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
Z26-07- <input type="text"/> -0	2.95 (75)	3.62 (92)	≈ 0.65 (0.96)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
Z26-2/45- <input type="text"/> -0	1.89/1.89 (48/48)	4.61 (117)	≈ 0.77 (1.14)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
Z26-3/45- <input type="text"/> -0	1.85/1.89/1.85 (47/48/47)	6.57 (167)	≈ 0.87 (1.30)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: Z26-07-**100**-0

	063	075	100	125	150	175	200	250
R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)
H <sup>+5</sup>	6.93 (176)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	21.65 (550)
D	6.77 (172)	7.24 (184)	8.23 (209)	9.21 (234)	10.20 (259)	11.18 (284)	12.17 (309)	14.13 (359)
K	12.20 (310)	13.78 (350)	16.93 (430)	19.88 (505)	23.03 (585)	26.18 (665)	29.33 (745)	35.43 (900)

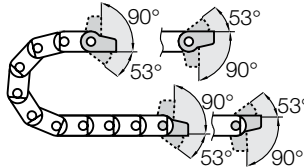




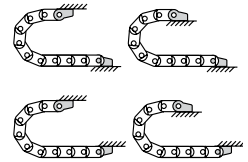
### Option 1: pivoting

- Recommended for unsupported and gliding applications
- Space-restricted conditions
- Available with or without strain relief tiewrap plates
- Corrosion resistant

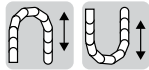
Moving end  
26...3PZB



Fixed end  
26...4PZB



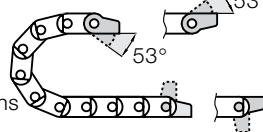
Possible installation configurations -



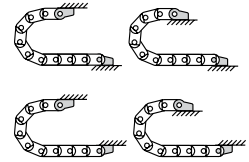
### Option 2: locking

- Recommended for unsupported and gliding applications
- For high speed and/or accelerations
- Corrosion resistant

Moving end  
26...1PZB



Fixed end  
26...2PZB



Possible installation configurations -

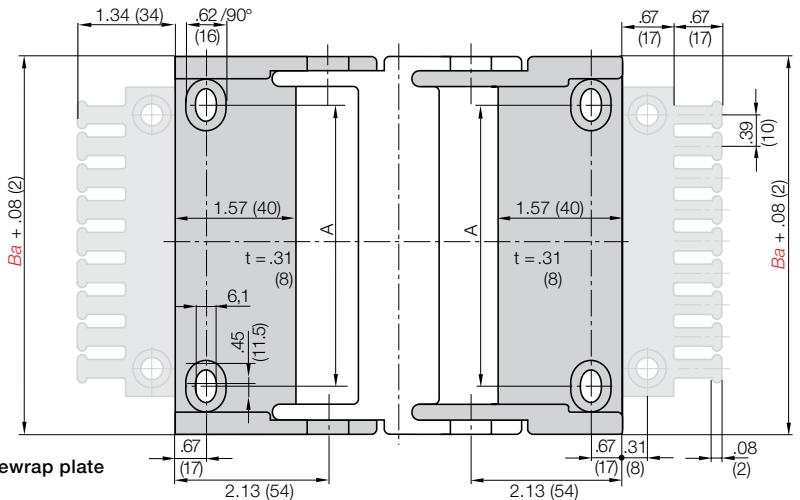
## Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

### Part Number Structure

2607- 34 PZB K1

- With 10 cable tieswraps
- With tiewrap plates
- Complete Set  
34 = Pivoting  
12 = Locking
- Mounting brackets for selected chain type



### Full set, for both ends:

2607- [ 34 PZB ] Full set, each part with pin/bore + tiewrap plate

### Single-part order:

2607- [ 3 PZB ] Mounting bracket with bore + tiewrap plate

2607- [ 4 PZB ] Mounting bracket with pin + tiewrap plate

### Part No. Full Set (pivoting)

With Tiewrap Plates

Series E26/Z26:

2607-34PZB

### Part No. Full Set (pivoting)

With Tiewrap Plates + 10 cable ties

Series E26/Z26:

2607-34PZBK1

### Part No. Full Set (pivoting)

Without Tiewrap Plates

Series E26/Z26:

2607-34PZ

For Chain Type	Part No. Full Set with Tiewrap Plate	Part No. Full Set with Tiewrap Plate + 10 cable ties	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)	Number of Teeth
E26/Z26-07	2607- [ ] PZB	2607- [ ] PZBK1	2607- [ ] PZ	2.17 (55)	7
E26/Z26-2/45	2610- [ ] PZB	2610- [ ] PZBK1	2610- [ ] PZ	3.15 (80)	10
E26/Z26-3/45	2615- [ ] PZB	2615- [ ] PZBK1	2615- [ ] PZ	5.12 (130)	15

[ 34 ] or [ 12 ]

For pivoting brackets choose [ 34 ]

For locking brackets choose [ 12 ]

Example: 2607- [ 34 ] PZB

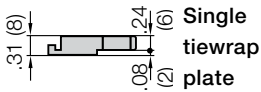
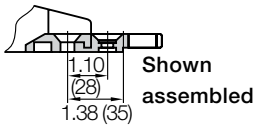
**Strain relief for polymer mounting brackets (pivoting or locking)**

The strain relief tiwrap plates can be snapped directly onto the mounting bracket. After bolting the mounting brackets to the machine, the strain relief tiwrap plates are firmly connected to the base. There is no need to bolt them on separately. Cable tiwraps secured to the cable and the tiwrap plate (teeth) provide proper strain relief and save time.

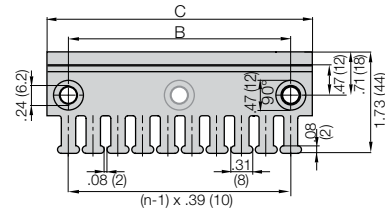
**Tiewrap Plates**

**Option 1:  
 Tiewrap plates as an individual part**

Available as an individual component, can be fixed onto a mounting bracket.



Tiewrap Plate	n Number of Teeth	C Overall Width in. (mm)	B Bore Width in. (mm)	Center Bore
3050-ZB	5	1.97 (50)	1.18 (30)	no
3075-ZB	7	2.95 (75)	2.16 (55)	no
3100-ZB	10	3.94 (100)	3.15 (80)	no
3115-ZB	11	4.53 (115)	3.74 (95)	no
3125-ZB	12	4.92 (125)	4.13 (105)	no
3150-ZB	15	5.91 (150)	5.12 (130)	no
3175-ZB	17	6.89 (175)	6.10 (155)	no
3200-ZB	20	7.87 (200)	7.09 (180)	yes
3225-ZB	22	8.86 (225)	8.07 (205)	yes
3250-ZB	25	9.84 (250)	9.06 (230)	yes



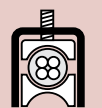
For more information please refer to strain relief section of Chapter 10



**Cable tiwraps as individual parts**

Cable tiwraps 100 pieces/bag	Width x Length		Maximum Ø		Tensile Strength	
	in.	(mm)	in.	(mm)	lbs	(N)
CFB-001	.19 x 5.91	(4.8 x 150)	1.42	(36)	50	(222)

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](http://igus.com/e-chains)





Price Index



Series E300/Z300

Special Features / Options



IPA Qualification Certificate  
Air Cleanliness Class ISO Class 2  
(at v = 3.28 ft/s) upon request



Flammability Class  
VDE 0304 IIC UL94 V2



Special equipment: Electrically  
conductive ESD/ATEX version  
upon request

Assembly Tips



Just push the cables into the e-chain using your thumb

Other Installation Methods

Vertical, hanging ≤ 32.8 ft (10 m)

Vertical, standing ≤ 4.92 ft (1.5 m)

Side-mounted, un\_supp. ≤ 1.64 ft (0.5 m)

Rotary requires further calculation

Usage Guidelines



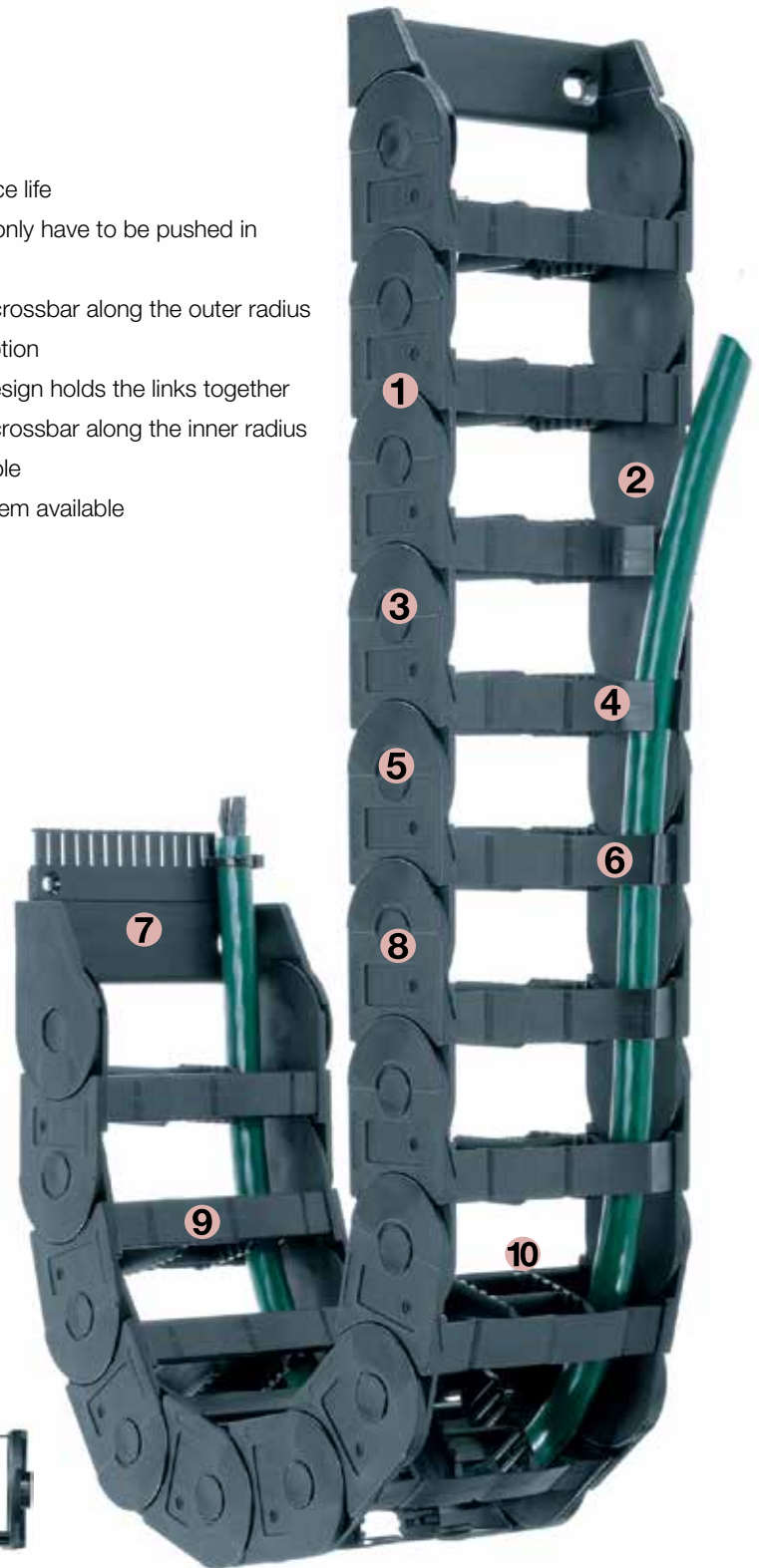
- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If high loads and long unsupported lengths are present  
➤ Series 3400/3500 E2/000

Features & Benefits

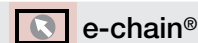
- 1 Limited torsion tolerance
- 2 Cable-friendly interior
- 3 Large pins for long service life
- 4 Very easy to fill - cables only have to be pushed in
- 5 Dirt-repellent exterior
- 6 "E" Series features split crossbar along the outer radius
- 7 Integrated strain relief option
- 8 Patented push button design holds the links together
- 9 "Z" Series features split crossbar along the inner radius
- 10 Interior separation possible
- 11 1-, 2- or 3-chamber system available



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E300-075-100-0



1 Set 3075-34PZB



# e-chain system® E-Z chain

## Series E300/Z300

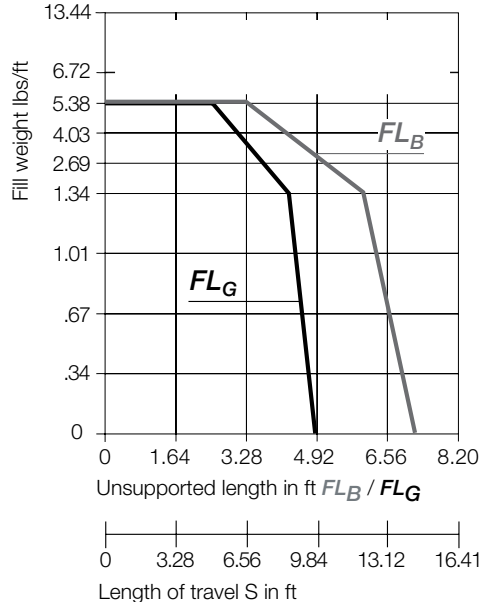
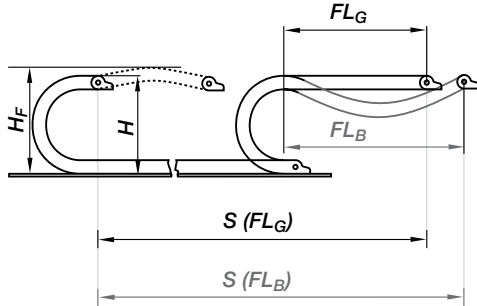
### Installation Dimensions



E300  
Z300

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



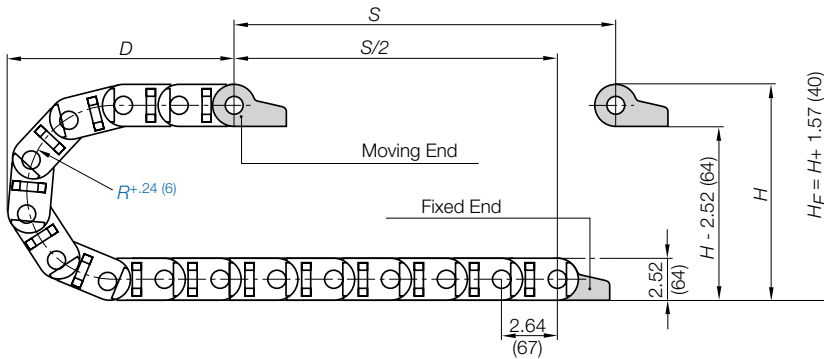
#### Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height



Pitch per link = 2.64" (67 mm)  
 Links per ft (m) = 4.57 (15)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_f = H + 1.57$  in. (40 mm) (with 1.68 lbs/ft (2.5 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)
$H^{*4}$	8.43 (214)	10.39 (264)	12.36 (314)	14.33 (364)	18.27 (464)	22.20 (564)	26.14 (664)
D	8.19 (208)	9.17 (233)	10.16 (258)	11.14 (283)	13.11 (333)	15.08 (383)	17.05 (433)
K	14.57 (370)	17.72 (450)	20.87 (530)	24.02 (610)	30.12 (765)	36.22 (920)	42.52 (1080)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material (e-chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (e-chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

\*Available in igumid NB upon request, please consult igus® for delivery time

#### Technical Data



Details of material properties

► Chapter 1



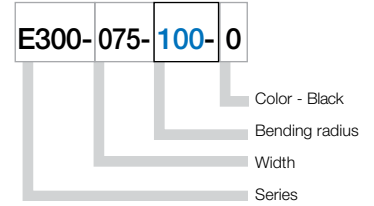
PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](http://igus.com/e-chains)



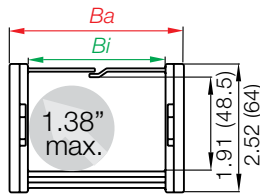
Series E300  
Split crossbar along the outer radius



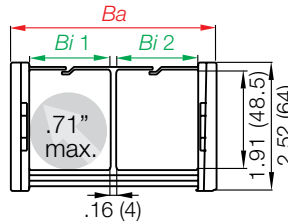
Part Number Structure



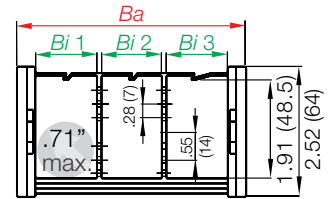
Single Chamber System



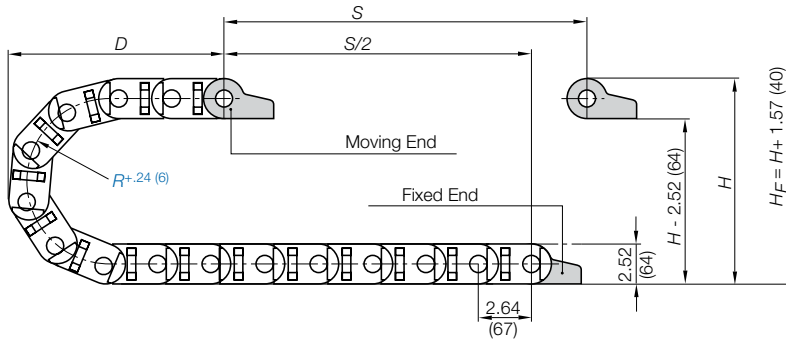
2 Chamber System



3 Chamber System with optional shelving

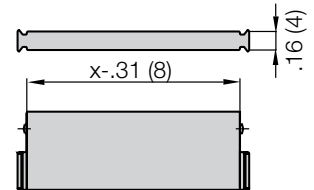


Supplement part number with required radius. Example: E300-075--0  
Pitch: 2.64 in. (67 mm) per link links/ft (m) = 4.57 (15)



Shelving

Unassembled
Part number 386-54
Assembled
Part number 387-54



Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
1 Chamber System			
E300-075- <input type="text" value=""/> -0	2.95 (75)	3.74 (95)	≈ 1.08 (1.60)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
2 Chamber System			
E300-2/45- <input type="text" value=""/> -0	1.89/1.89 (48/48)	4.72 (120)	≈ 1.20 (1.78)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
3 Chamber System			
E300-3/45- <input type="text" value=""/> -0	1.85/1.81/1.85 (47/46/47)	6.69 (170)	≈ 1.29 (1.92)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E300-075--0

	075	100	125	150	200	250	300
R	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)
H +5	8.43 (214)	10.39 (264)	12.36 (314)	14.33 (364)	18.27 (464)	22.20 (564)	26.14 (664)
D	8.19 (208)	9.17 (233)	10.16 (258)	11.14 (283)	13.11 (333)	15.08 (383)	17.05 (433)
K	14.57 (370)	17.72 (450)	20.87 (530)	24.02 (610)	30.12 (765)	36.22 (920)	42.52 (1080)

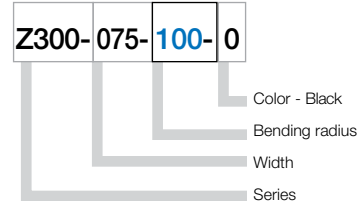


Series Z300

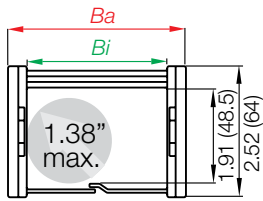
Split crossbar along the inner radius



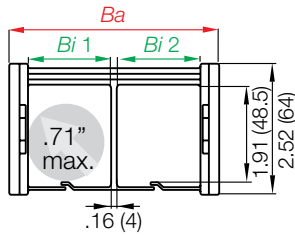
Part Number Structure



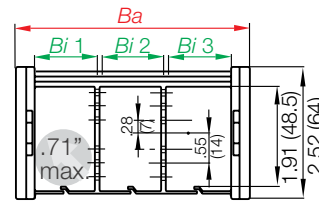
Single Chamber System



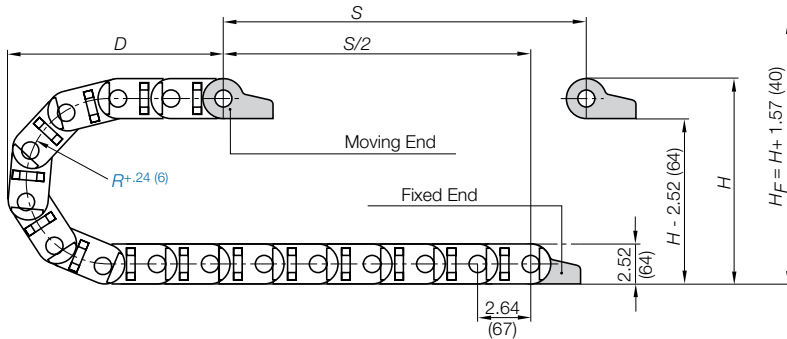
2 Chamber System



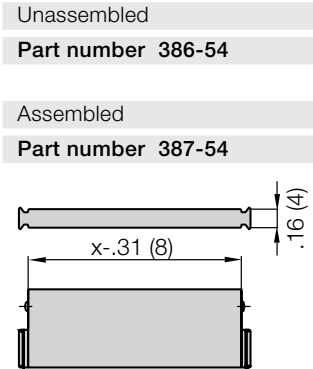
3 Chamber System



Supplement part number with required radius. Example: Z300-075--0  
Pitch: 2.64 in. (67 mm) per link links/ft (m) = 4.57 (15)



Shelving



Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
1 Chamber System			
Z300-075- <input type="text"/> -0	2.95 (75)	3.74 (95)	≈ 1.08 (1.60)

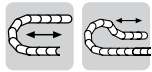
Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
2 Chamber System			
Z300-2/45- <input type="text"/> -0	1.89/1.89 (48/48)	4.72 (120)	≈ 1.20 (1.78)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
3 Chamber System			
Z300-3/45- <input type="text"/> -0	1.85/1.81/1.85 (47/46/47)	6.69 (170)	≈ 1.29 (1.92)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: Z300-075--0

	075	100	125	150	200	250	300
R	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)
H +5	8.43 (214)	10.39 (264)	12.36 (314)	14.33 (364)	18.27 (464)	22.20 (564)	26.14 (664)
D	8.19 (208)	9.17 (233)	10.16 (258)	11.14 (283)	13.11 (333)	15.08 (383)	17.05 (433)
K	14.57 (370)	17.72 (450)	20.87 (530)	24.02 (610)	30.12 (765)	36.22 (920)	42.52 (1080)

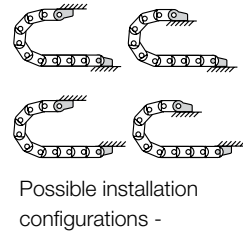
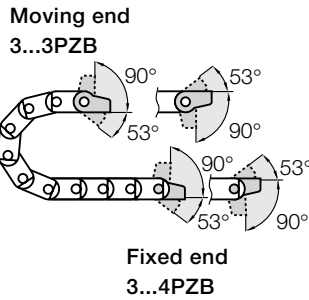




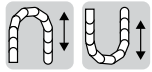
Standard

**Option 1: pivoting**

- Recommended for unsupported and gliding applications
- Space-restricted conditions
- Available with or without strain relief tiwrap plates
- Corrosion resistant

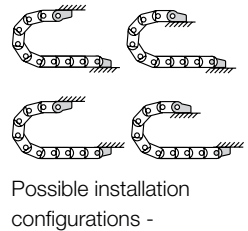
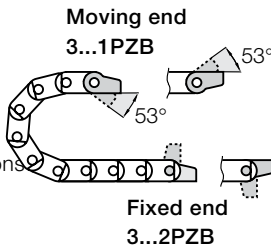


Possible installation configurations -



**Option 2: locking**

- Recommended for unsupported and gliding applications
- For high speed and/or accelerations
- Corrosion resistant



Possible installation configurations -

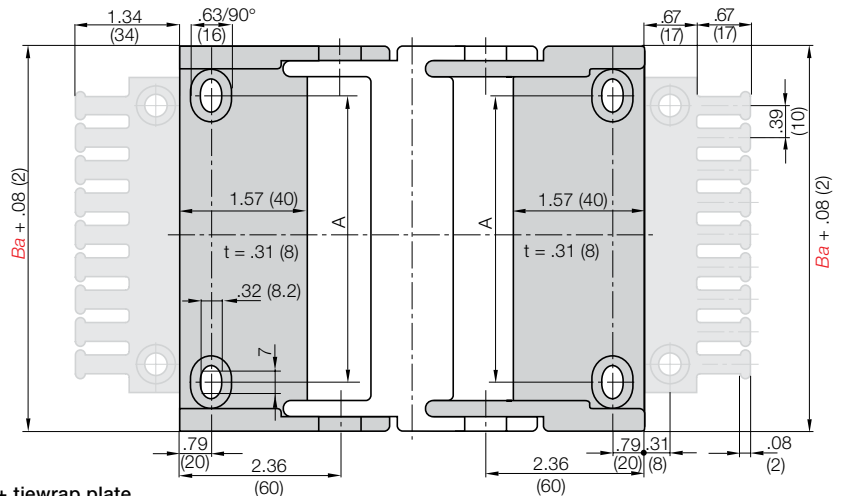
**Dimensions and order configurations**

Strain relief is possible on the moving end and/or the fixed end.

**Part Number Structure**



- With 10 cable tiwrapaps
- With tiwrap plates
- Complete Set  
34 = Pivoting  
12 = Locking
- Mounting brackets for selected chain type



**Full set, for both ends:**

3075- [34] [PZB] Full set, each part with pin/bore + tiwrap plate

**Single-part order:**

3075- [3] [PZB] Mounting bracket with bore + tiwrap plate

3075- [4] [PZB] Mounting bracket with pin + tiwrap plate

**Part No. Full Set (pivoting)**

**With Tiwrap Plates**

Series E300, Z300:

3075-34PZB

**Part No. Full Set (pivoting)**

**With Tiwrap Plates + 10 cable ties**

Series E300, Z300:

3075-34PZBK1

**Part No. Full Set (pivoting)**

**Without Tiwrap Plates**

Series E300, Z300:

3075-34PZ

For Chain Type	Part No. Full Set with Tiwrap Plate	Part No. Full Set with Tiwrap Plate + 10 cable ties	Part No. Full Set without Tiwrap Plate	Dimension A in. (mm)	Number of Teeth
E300/Z300-075	3075- [ ] PZB	3075- [ ] PZBK1	3075- [ ] PZ	2.09 (53)	7
E300/Z300-2/45	3100- [ ] PZB	3100- [ ] PZBK1	3100- [ ] PZ	3.07 (78)	10
E300/Z300-3/45	3150- [ ] PZB	3150- [ ] PZBK1	3150- [ ] PZ	5.04 (128)	15

34 or 12

For pivoting brackets choose **34**  
For locking brackets choose **12**  
Example: 3075-**34** PZB

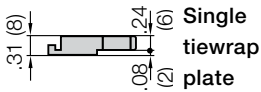
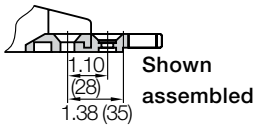
**Strain relief for polymer mounting brackets (pivoting or locking)**

The strain relief tiwrap plates can be snapped directly onto the mounting bracket. After bolting the mounting brackets to the machine, the strain relief tiwrap plates are firmly connected to the base. There is no need to bolt them on separately. Cable tiwraps secured to the cable and the tiwrap plate (teeth) provide proper strain relief and save time.

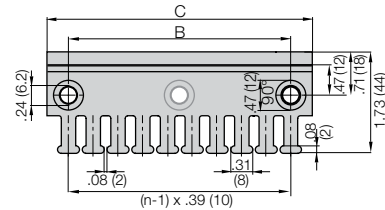
**Tiewrap Plates**

**Option 1:  
 Tiewrap plates as an individual part**

Available as an individual component, can be fixed onto a mounting bracket.



Tiewrap Plate	n Number of Teeth	C Overall Width in. (mm)	B Bore Width in. (mm)	Center Bore
3050-ZB	5	1.97 (50)	1.18 (30)	no
3075-ZB	7	2.95 (75)	2.16 (55)	no
3100-ZB	10	3.94 (100)	3.15 (80)	no
3115-ZB	11	4.53 (115)	3.74 (95)	no
3125-ZB	12	4.92 (125)	4.13 (105)	no
3150-ZB	15	5.91 (150)	5.12 (130)	no
3175-ZB	17	6.89 (175)	6.10 (155)	no
3200-ZB	20	7.87 (200)	7.09 (180)	yes
3225-ZB	22	8.86 (225)	8.07 (205)	yes
3250-ZB	25	9.84 (250)	9.06 (230)	yes



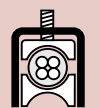
For more information please refer to strain relief section of Chapter 10



**Cable tiwraps as individual parts**

Cable tiwraps 100 pieces/bag	Width x Length		Maximum Ø		Tensile Strength	
	in.	(mm)	in.	(mm)	lbs	(N)
CFB-001	.19 x 5.91	(4.8 x 150)	1.42	(36)	50	(222)

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](http://igus.com/e-chains)





# igus<sup>®</sup> Zipper Chain



# Zipper - Fast and easy access to cables and hoses

## iF-Design Award

Zipper e-chains® enable lightning-fast opening and closing of lids. Different from the typical e-chain® design, which features side links and crossbars, Zipper chains are built with interconnected lids. These lids pull back like a zipper, removing the top section of the e-chain® in one uniform piece at any point along the length of the carrier. Cable installation and removal—especially for cables equipped with preassembled connectors—is both fast and simple because the unique design eliminates the need to snake cables through the carrier.

### Typical industries and applications

- Pick & place robots
- Semi-conductor machines
- Linear motors, actuators
- Measuring equipment
- Machine tools (Zipper e-tube)



Cleanroom Class 1 (ISO class 3) for Zipper Series 15, tested by the Dryden Engineering Company, CA



Flammability Class  
VDE 0304 IIC UL94 HB



iF-Design  
Award Winner



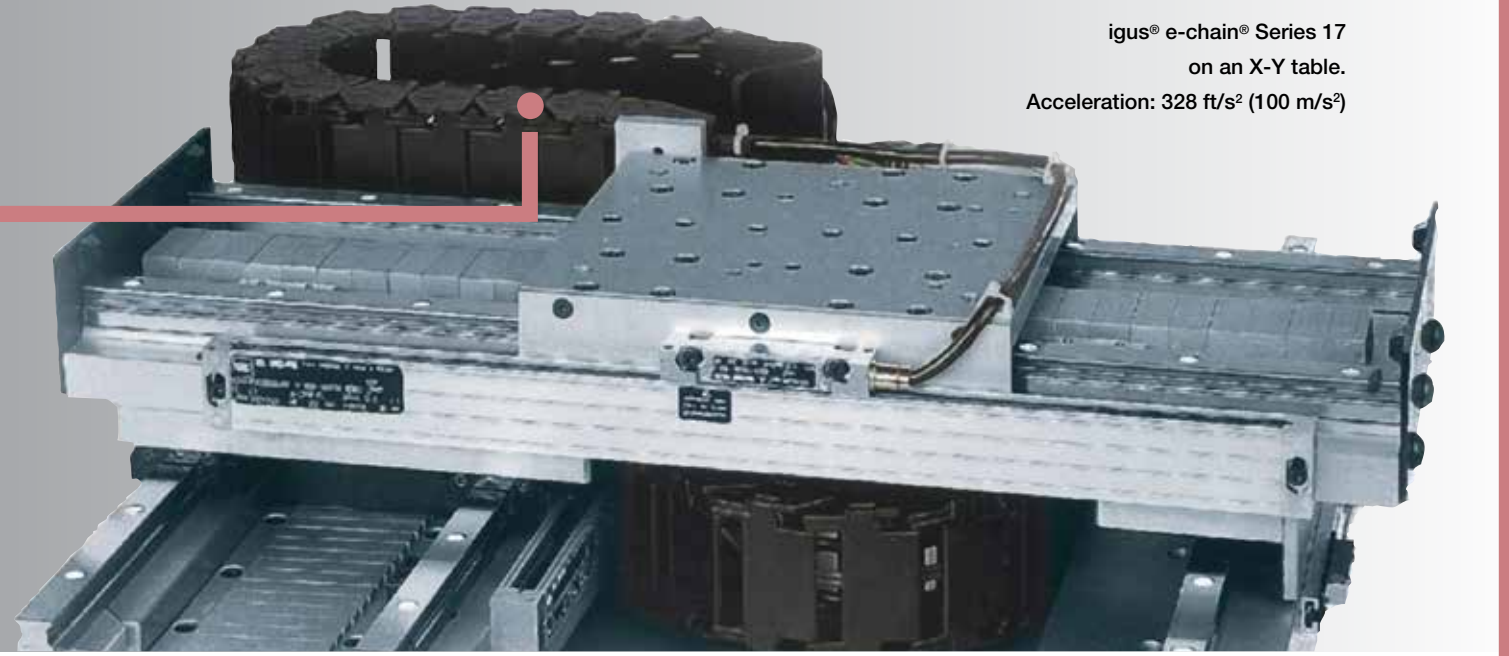
Low-noise



Fast Opening and Closing  
with “Zipper”



igus® e-chain® Series 17  
on an X-Y table.  
Acceleration: 328 ft/s<sup>2</sup> (100 m/s<sup>2</sup>)

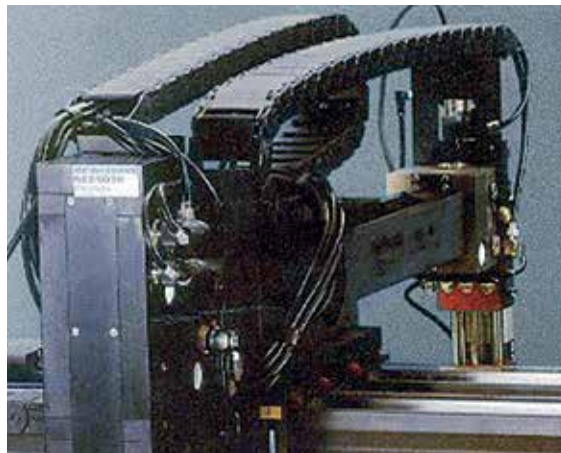


### Lightning fast opening and closing with “Zipper”

- Reduced assembly-time
- Zipper-like design for quick opening and closing of lids
- Zipper lids can be separated and joined at each chain link
- Small pitch for low noise and smooth operation
- High accelerations: 328 ft/s<sup>2</sup> (100 m/s<sup>2</sup>) and more are possible
- Interior separation possible for larger versions (Series 15 and 17)



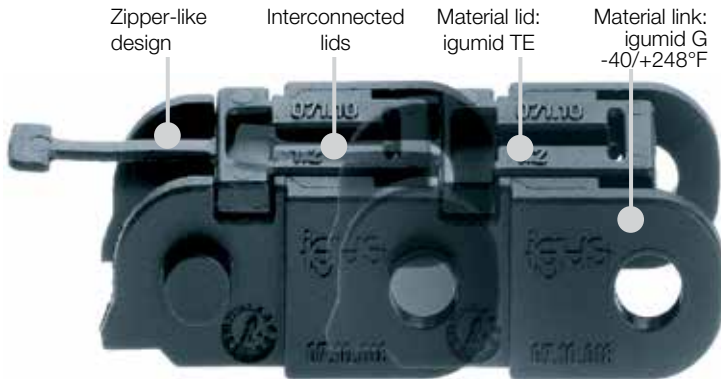
igus® e-chain® Series 15 Zipper in  
automatic equipment - reduce assembly time



Series 15 with acceleration of 328 ft/s<sup>2</sup> (100 m/s<sup>2</sup>)  
on pick-and-place robots, low noise

# e-chain system® Zipper

## Selection Guide



### Zipper e-chains®

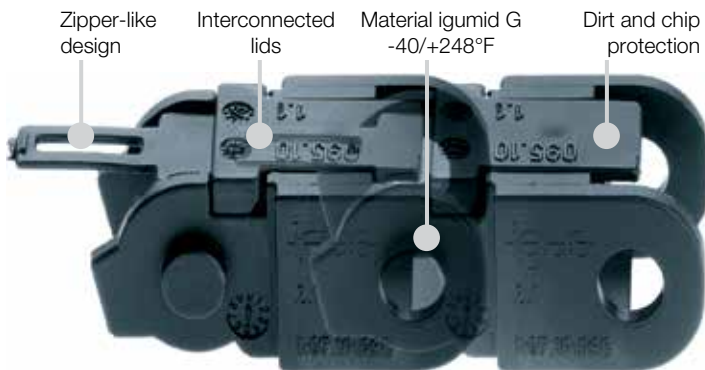
- Reduced assembly-time:  
Zipper-like design for quick opening and closing of lids
- Zipper lids can be separated and joined at each chain link
- Small pitch for low noise, smooth operation
- High acceleration: 328 ft/s<sup>2</sup> (100 m/s<sup>2</sup>) and more
- Interior separation possible for larger versions
- You can find more technical data about the material, chemical resistance, temperatures ► **Design, Chapter 1**

Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
047	.35	(9.0)	.39- .63	(10 - 16)	.63- .87	(16.0 - 22.0)	.49	(12.5)	.71- 1.50	(018 - 038)
07	.41	(10.3)	.24- 2.52	(6 - 64)	.49- 2.80	(12.5 - 71.0)	.59	(15.0)	.71- 1.89	(018 -048*)
09	.59	(15.0)	.39- 1.97	(10 - 50)	.72- 2.29	(18.2 - 58.2)	.76	(19.3)	1.10- 1.89	(028 - 048)
15	.67	(17.0)	.59- 3.94	(15 - 100)	1.02- 4.45	(26.0 - 113.0)	.94	(24.0)	1.50- 7.09	(038 - 180)
17	1.26	(32.0)	.59- 3.94	(15 - 100)	1.02- 4.45	(26.0 - 113.0)	1.54	(39.0)	2.48- 4.92	(063 - 125)

\*For the 07 series, the 1.89" (048mm) bend radius is only available for the 2.52" (64mm) inner width

## For protection against dirt and debris

For information about this zipper series please refer to the tubes section of the catalog ► **tubes, Chapter 5**



### Zipper e-tubes against chips and dirt

- Fully enclosed e-tube with zipper opening mechanism
- Protection against dirt and chips
- Superfast opening of interconnected lids
- Modular design - tool-free lengthening and shortening
- Small pitch for low noise, smooth operation, high acceleration
- You can find more technical data about the material, chemical resistance, temperatures ► **Design, Chapter 1**

Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
R07	.41	(10.3)	.39- 1.97	(10 - 50)	.65- 2.24	(16.5 - 57.0)	.59	(15.0)	1.50 - 1.89	(038 - 048)
R09	.59	(15.0)	.39- 1.97	(10 - 50)	.72- 2.29	(18.2 - 58.2)	.76	(19.3)	1.89 - 3.94	(048 - 100)
R15	.67	(17.0)	.98- 3.15	(25 - 80)	1.42- 3.70	(36.0 - 94.0)	.94	(24.0)	2.48 - 7.09	(063 - 180)
R17	1.26	(32.0)	.59- 2.48	(15 - 63)	1.02- 2.91	(26.0 - 74.0)	1.54	(39.0)	2.48 - 4.92	(063 - 125)



Available from stock. Orders ship as early as today.\*

\*On average 90% of orders ship the same day..



# e-chain system® Zipper Assembly Instructions

## Assembling | Zipper



1 Push and click



2 Snap lids together



3 Position and...



4 ...push and snap

## Separating | Zipper



1 Zip - upward . All lids fit like a "Zipper"



2 Separate lids



3 Release side-link



4 Twist and pull apart

## Price Index



Series 047

## Special Features / Options



Upon request: Cleanroom Class 1  
(ISO class 3) tested by the Dryden  
Engineering Company, CA



Flammability Class  
VDE 0304 IIC UL94 HB



Low-noise

## Assembly Tips



"Zipper-fast" opening and closing

## Usage Guidelines



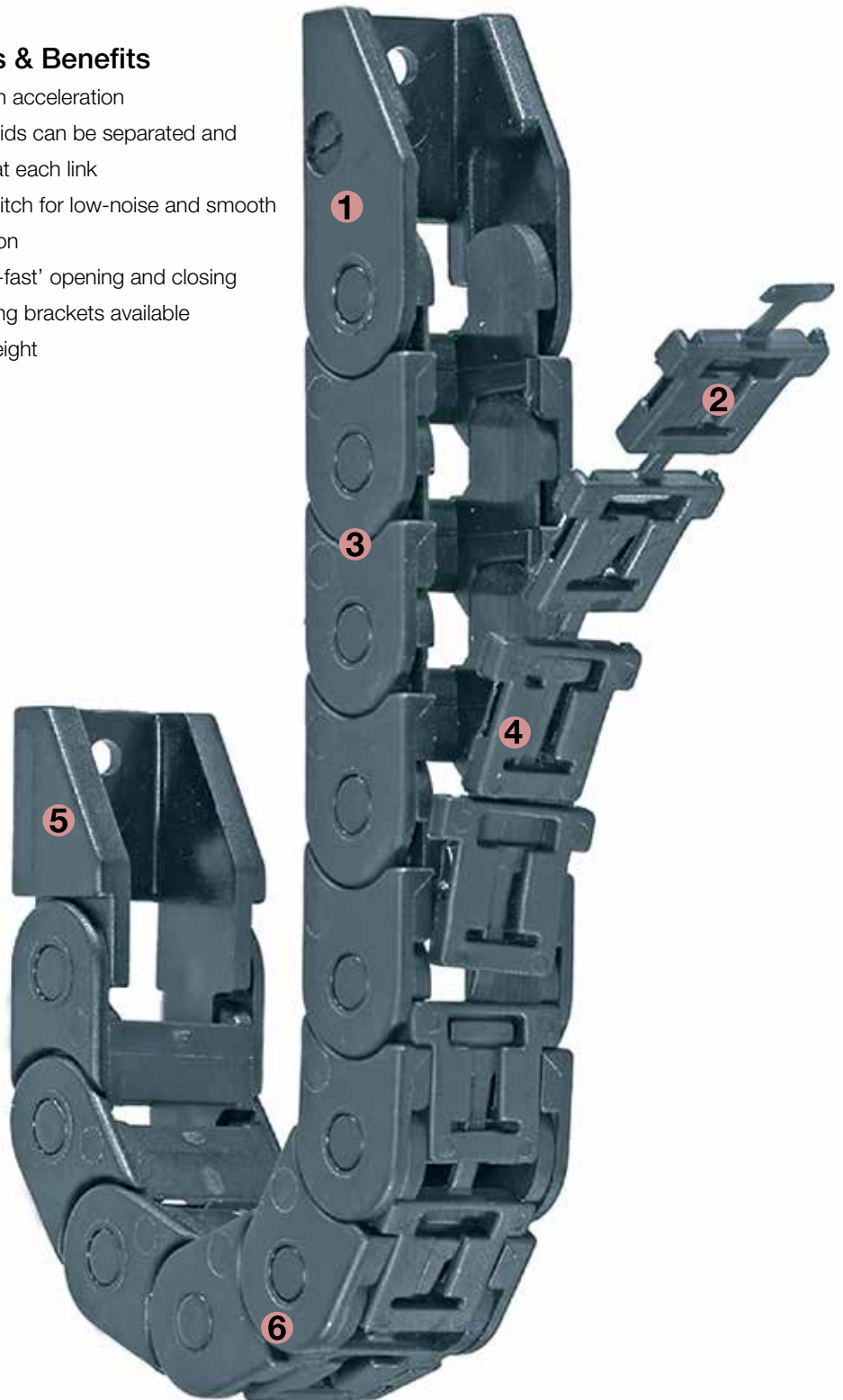
- If fast, zipper-like accessibility to cables is required
- If quiet operation is required
- If aesthetic design is required
- If excellent service life is required
- If cost is a factor



- If easy filling without opening and closing is required  
➤ Series E04 E-Z Chain

## Features & Benefits

- 1 For high acceleration
- 2 Zipper lids can be separated and joined at each link
- 3 Small pitch for low-noise and smooth operation
- 4 'Zipper-fast' opening and closing
- 5 Mounting brackets available
- 6 Lightweight



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 047-10-038-0

e-chain®

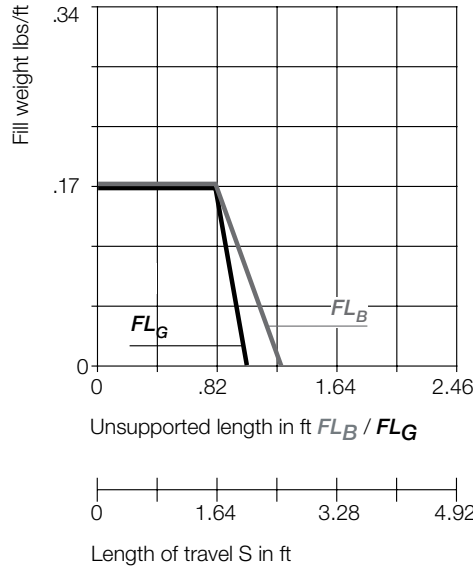
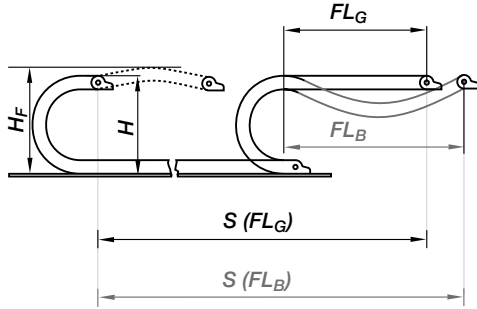
1 Set 0450-10-12

Mounting Bracket

# e-chain system® Zipper Series 047 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1

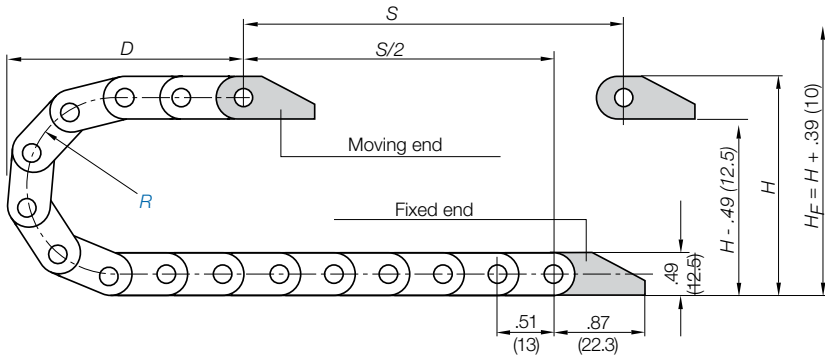


## Short Travels - Unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height



Pitch per link = .51" (13 mm)  
 Links per ft (m) = 23.46 (77)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_f = H + .39 \text{ in. (10 mm)}$  (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H*	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

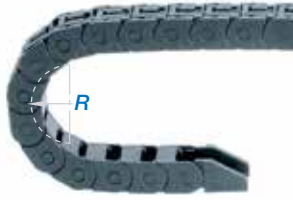
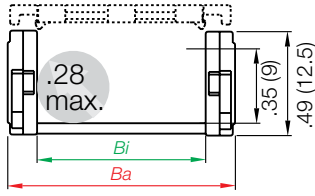
## Technical Data



Details of material properties

► Chapter 1

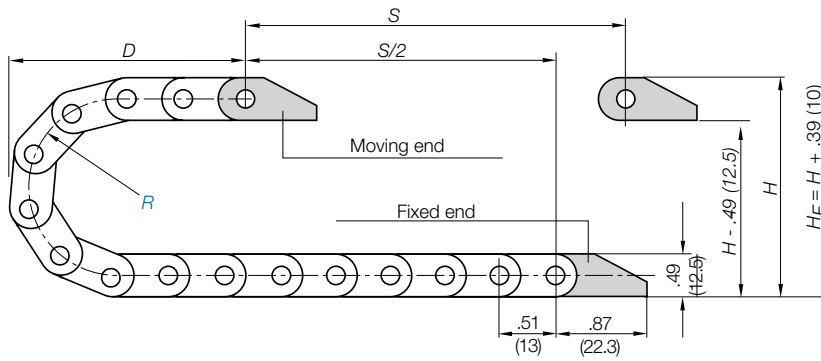
Series 047 - zip open along the outer radius



Part Number Structure



- Color - Black
- Bending radius
- Width
- Series



Supplement part number with required radius. Example: 047-10-**038**-0  
Pitch: .51 in. (13 mm) per link links/ft (m) = 23.46 (77)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
047-10- <input type="text"/> -0	.39 (10)	.63 (16)	≈ 0.067 (0.10)
047-16- <input type="text"/> -0	.63 (16)	.87 (22)	≈ 0.074 (0.11)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: 047-10-**038**-0

	<b>018</b>	<b>028</b>	<b>038</b>
R	.71 (018)	1.10 (028)	1.50 (038)
H*	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)

# e-chain system® Zipper

## Series 047

### Mounting Brackets



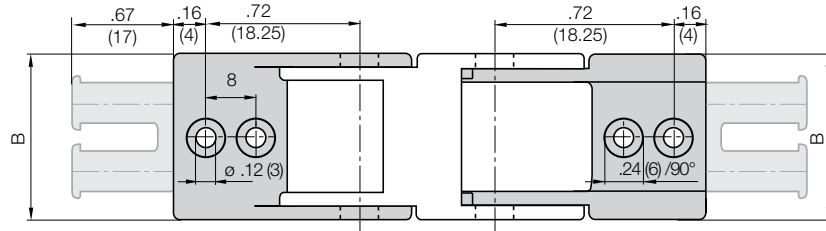
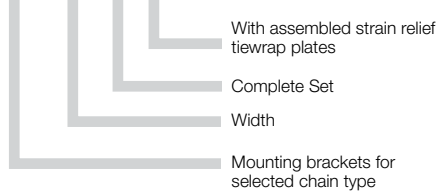
#### Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled



#### Part Number Structure

0450- 10- 12 PZ



#### Full set, for both ends:

0450-10-12 Full set, each part with pin/bore

#### Single-part order:

0450-10-1 Mounting bracket with bore

0450-10-2 Mounting bracket with pin

Chain Type	Part No.	Part No.	Dimensions B		Number of Teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	
047-10	0450-10-12PZ	0450-10-12	.63	(16)	1
047-16	0450-16-12PZ	0450-16-12	.87	(22)	2

## Additional Accessories



**Quickfix** - mounting bracket with dowel, upon request

Part No.

0450-16-12Q



## Price Index



Series 07

## Special Features / Options



Upon request: Cleanroom Class 1  
(ISO class 3) tested by the Dryden  
Engineering Company, CA



Flammability Class  
VDE 0304 IIC UL94 HB



Low-noise

## Assembly Tips



“Zipper-fast” opening and closing

## Usage Guidelines



- If fast, zipper-like accessibility to cables is required
- If quiet operation is required
- If aesthetic design is required
- If excellent service life is required



- If a more cost-effective, openable e-chain is required
  - Series B07 E2 Micro
- If cable installation without opening lids is possible
  - Series E06 E-Z Chain
- If a closed tube system is required
  - Series R07 E2 Zipper Tube

## Features & Benefits

- 1 Mounting bracket with integrated strain relief
- 2 Zipper lids can be separated and joined at each link
- 3 Small pitch for low-noise and smooth operation
- 4 ‘Zipper-fast’ opening and closing
- 5 For high acceleration
- 6 Lightweight



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 07-20-038-0

e-chain®

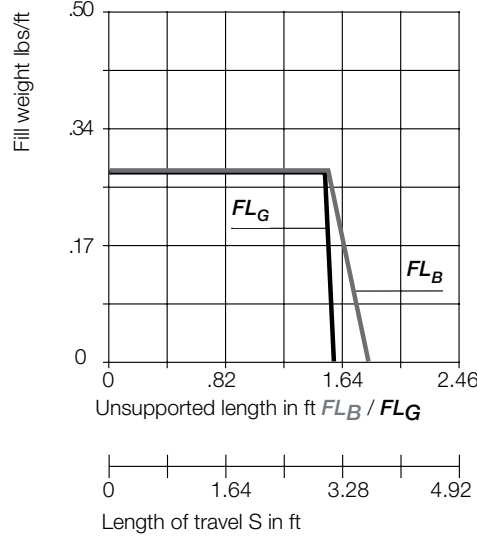
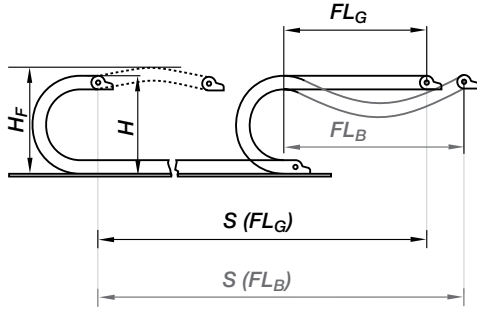
1 Set 060-20-12PZ

Mounting Bracket

# e-chain system® Zipper Series 07 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1

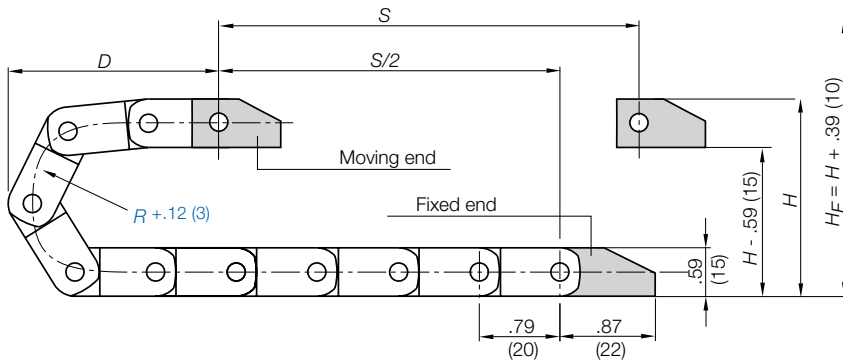


## Short Travels - Unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height



Pitch per link = .79" (20 mm)  
 Links per ft (m) = 15.24 (50)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_f = H + .39 \text{ in. (10 mm)}$  (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048*)
H*	2.01 (51)	2.80 (71)	3.58 (91)	4.37 (111)
D	2.20 (56)	2.60 (66)	2.99 (76)	3.39 (86)
K	3.94 (100)	5.12 (130)	6.30 (160)	7.68 (195)

\*This bend radius is only available for the 2.52" (64mm) inner width



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

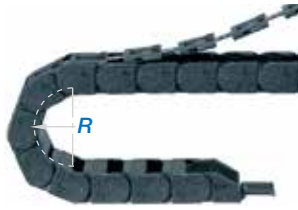
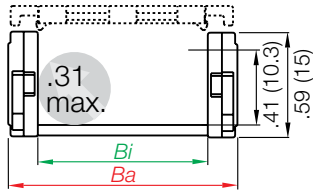
## Technical Data



Details of material properties

► Chapter 1

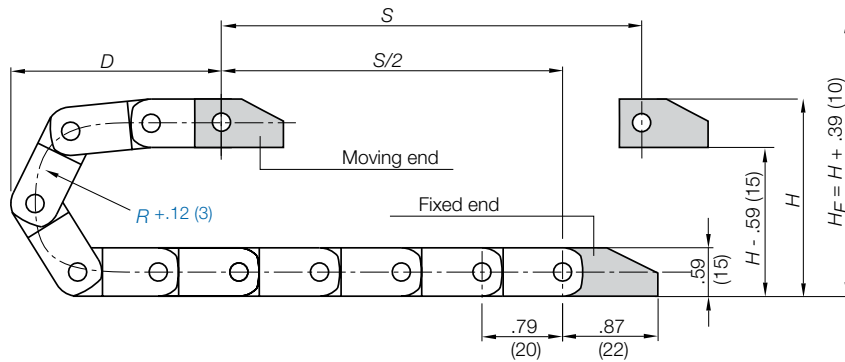
Series 07 - zip open along the outer radius



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



Supplement part number with required radius. Example: 07-20-**038**-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
07-06- <input type="checkbox"/> -0	.24 (6)	.49 (12.5)	≈ 0.087 (0.13)
07-10- <input type="checkbox"/> -0	.39 (10)	.65 (16.5)	≈ 0.094 (0.14)
07-16- <input type="checkbox"/> -0	.63 (16)	.89 (22.5)	≈ 0.108 (0.16)
07-20- <input type="checkbox"/> -0	.79 (20)	1.06 (27.0)	≈ 0.114 (0.17)
07-30- <input type="checkbox"/> -0	1.18 (30)	1.46 (37.0)	≈ 0.134 (0.20)
07-40- <input type="checkbox"/> -0	1.57 (40)	1.85 (47.0)	≈ 0.155 (0.23)
07-50- <input type="checkbox"/> -0	1.97 (50)	2.24 (57.0)	≈ 0.175 (0.26)
07-64- <input type="checkbox"/> -0	2.52 (64)	2.80 (71.0)	≈ 0.202 (0.30)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 07-20-**038**-0

	018	028	038	048*
R	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048*)
H*	2.01 (51)	2.80 (71)	3.58 (91)	4.37 (111)
D	2.20 (56)	2.60 (66)	2.99 (76)	3.39 (86)
K	3.94 (100)	5.12 (130)	6.30 (160)	7.68 (195)

\*This bend radius is only available for the 2.52" (64mm) inner width

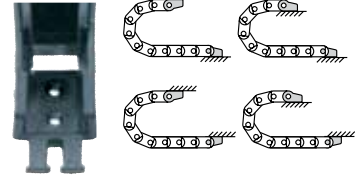
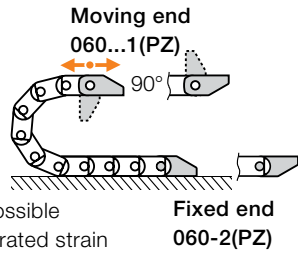


# e-chain system® Zipper Series 07 Mounting Brackets



## Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without integrated strain relief tiewrap plates

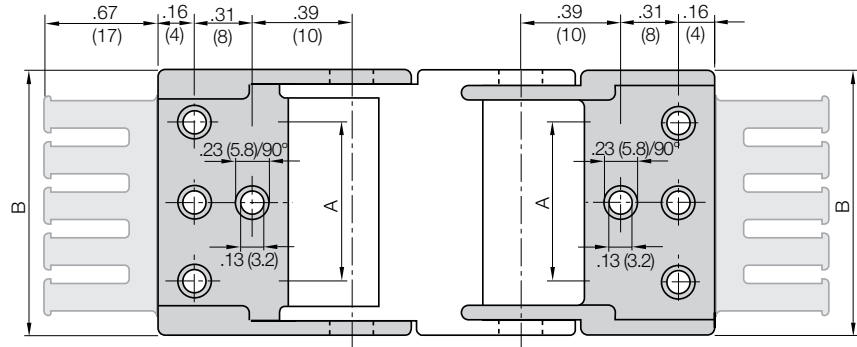


Possible installation configurations -

## Part Number Structure



- With assembled strain relief tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



## Full set, for both ends:

060- [20- 12] Full set, each part with pin/bore

## Single-part order:

060- [20- 1] Mounting bracket with bore

060- [20- 2] Mounting bracket with pin

060-06-12 - 060-20-12:

Center bores only

060-30-12 - 060-64-12:

Outer bores only

Chain Type	Part No.		Dimension A		Dimensions B		Number of Teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	in.	(mm)	
07-06	060-06-12PZ	060-06-12	—	—	.49	(12.5)	1
07-10	060-10-12PZ	060-10-12	—	—	.65	(16.5)	1
07-16	060-16-12PZ	060-16-12	—	—	.89	(22.5)	2
07-20	060-20-12PZ	060-20-12	—	—	1.06	(27.0)	2
07-30	060-30-12PZ	060-30-12	.87	(22)	1.46	(37.0)	3
07-40	060-40-12PZ	060-40-12	1.26	(32)	1.85	(47.0)	4
07-50	060-50-12PZ	060-50-12	1.65	(42)	2.24	(57.0)	5
07-64	060-64-12PZ	060-64-12	2.20	(56)	2.80	(71.0)	6

## Additional Accessories



**Quicksnap** - the complete, detachable mounting unit, upon request

### Part No.

- 060-10-QS
- 060-16-QS
- 060-20-QS
- 060-40-QS



**Quickfix** - mounting bracket with dowel, upon request

### Part No.

- 060-10-34QZ
- 060-20-34QZ



## Price Index



Series R07

## Special Features / Options



Upon request: Cleanroom Class 1  
(ISO class 3) tested by the Dryden  
Engineering Company, CA



ESD classification:  
Electrically conductive ESD/  
ATEX version upon request



Flammability Class  
VDE 0304 IIC UL94 HB



Low-noise

## Assembly Tips



"Zipper" fast opening and closing

## Usage Guidelines



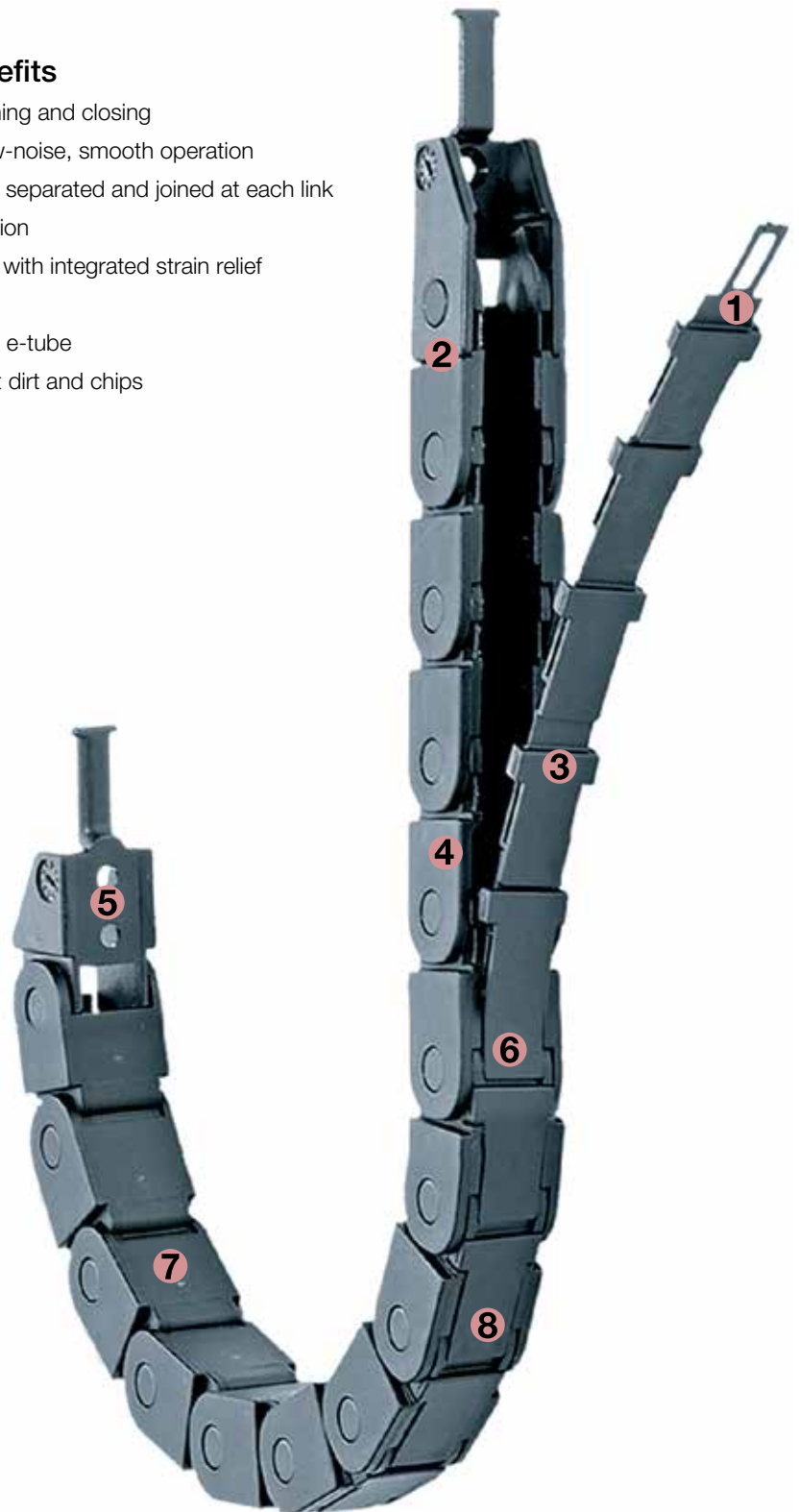
- If fast installation using zipper lids is required
- If protection against dust and dirt is required
- If quick insertion of cables with preassembled connectors is required



- If opening of the link is not necessary
  - Series 06 E2 Micro
- If cable installation without opening lids is possible
  - Series E06 E-Z Chain

## Features & Benefits

- 1 "Zipper" fast opening and closing
- 2 Small pitch for low-noise, smooth operation
- 3 Zipper lids can be separated and joined at each link
- 4 For high acceleration
- 5 Mounting bracket with integrated strain relief
- 6 Lightweight
- 7 Smallest zip-open e-tube
- 8 Protection against dirt and chips



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) R07-20-038-0



e-chain®

1 Set 060-20-12PZ



Mounting Bracket

# e-chain system® E2 tubes

## Series R07

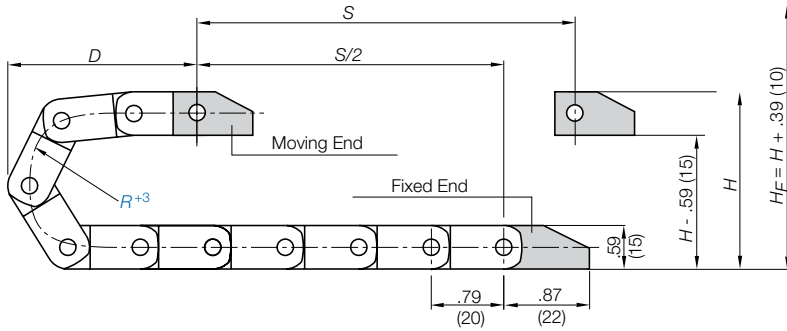
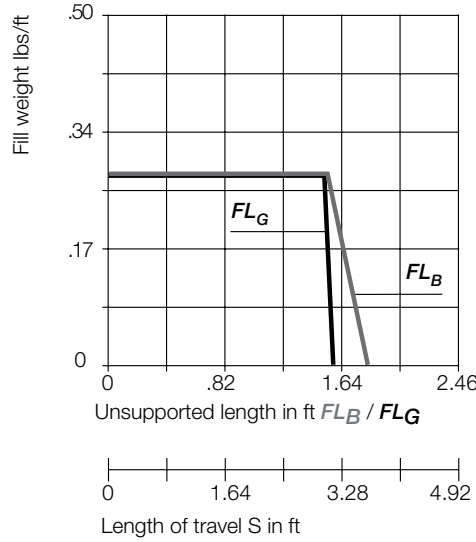
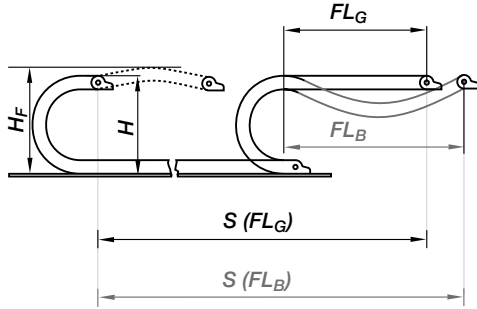
### Installation Dimensions



R07

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.50 (038)	1.89 (048)
H	3.58 (91)	4.37 (111)
D	2.99 (76)	3.39 (86)
K	6.30 (160)	7.68 (195)

#### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{Safety buffer}$
- $H_F$  = Required clearance height

Pitch per link = .79" (20 mm)  
 Links per ft (m) = 15.24 (50)  
 For center mount applications:  
 Chain length =  $S/2 + K$



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

#### Technical Data

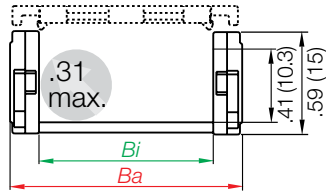


Details of material properties

► Chapter 1

Series R07 - e-tube zip open along the outer radius

igus®  
e-chain system®

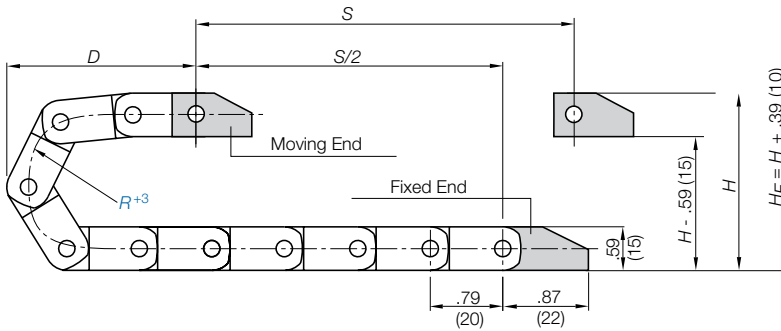


Part Number Structure



- Color - Black
- Bending radius
- Width
- Series

Telephone 1-800-521-2747



Supplement part number with required radius. Example: R07-20-038-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
R07-10- <input type="text"/> -0	.39 (10)	.65 (16.5)	≈ 0.094 (0.14)
R07-16- <input type="text"/> -0	.63 (16)	.89 (22.5)	≈ 0.108 (0.16)
R07-20- <input type="text"/> -0	.79 (20)	1.06 (27.0)	≈ 0.114 (0.17)
R07-30- <input type="text"/> -0	1.18 (30)	1.46 (37.0)	≈ 0.134 (0.20)
R07-40- <input type="text"/> -0	1.57 (40)	1.85 (47.0)	≈ 0.155 (0.23)
R07-50- <input type="text"/> -0	1.97 (50)	2.24 (57.0)	≈ 0.175 (0.26)

Choose from the radii below for all of the above sizes

Radius (mm) Example: R07-20-038-0

	<span style="border: 1px solid black; padding: 0 2px;">038</span>	<span style="border: 1px solid black; padding: 0 2px;">048</span>
<i>R</i>	1.50 (038)	1.89 (048)
<i>H</i>	3.58 (91)	4.37 (111)
<i>D</i>	2.99 (76)	3.39 (86)
<i>K</i>	6.30 (160)	7.68 (195)

Internet: [igus.com](http://igus.com)  
email: [sales@igus.com](mailto:sales@igus.com)  
QuickSpec: [igus.com/quickspec](http://igus.com/quickspec)

# e-chain system® E2 tubes Series R07 Mounting Brackets - Plastic

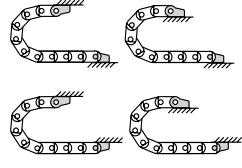
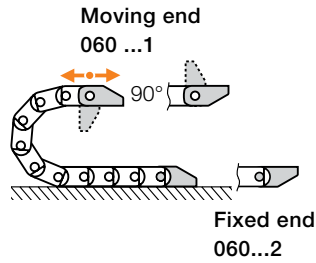


R07



## Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiwrap plates

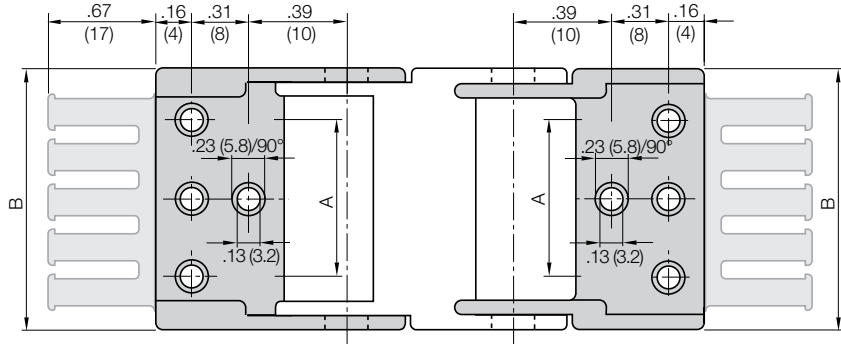


Possible installation configurations -

## Part Number Structure

060-	10-	12	PZ
------	-----	----	----

- With assembled strain relief tiwrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



## Full set, for both ends:

060- [10- 12] Full set, each part with pin/bore

## Single-part order:

060- [10- 1] Mounting bracket with bore

060- [10- 2] Mounting bracket with pin

060-10-12 - 060-20-12:

Center bores only

060-30-12 - 060-50-12:

Outer bores only

Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Dimension A		Dimensions B		Number of Teeth
			in.	(mm)	in.	(mm)	
R07-10	060-10-12PZ	060-10-12	—	—	.65	(16.5)	1
R07-16	060-16-12PZ	060-16-12	—	—	.89	(22.5)	2
R07-20	060-20-12PZ	060-20-12	—	—	1.06	(27.0)	2
R07-30	060-30-12PZ	060-30-12	.87	(22)	1.46	(37.0)	3
R07-40	060-40-12PZ	060-40-12	1.26	(32)	1.85	(47.0)	4
R07-50	060-50-12PZ	060-50-12	1.65	(42)	2.24	(57.0)	5

## Additional Accessories



**Quicksnap** - the complete, detachable mounting unit, upon request

### Part No.

- 060-10-QS
- 060-16-QS
- 060-20-QS
- 060-40-QS



**Quickfix** - mounting bracket with dowel, upon request

### Part No.

- 060-10-34QZ
- 060-20-34QZ

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



## Price Index



Series 09

## Special Features / Options



Upon request: Cleanroom Class 1  
(ISO class 3) tested by the Dryden  
Engineering Company, CA



Flammability Class  
VDE 0304 IIC UL94 HB



Low-noise

## Assembly Tips



“Zipper-fast” opening and closing

## Usage Guidelines



- If fast, zipper-like accessibility to cables is required
- If quick, easy insertion of cables with preassembled connectors is required
- If quiet operation is required
- If aesthetic design is required
- If high acceleration and travel speed is present



- If a more cost-effective, openable e-chain is required
  - Series B09 E2 Micro
- If cable installation without opening lids is possible
  - Series E08 E-Z Chain
- If a closed tube system is required
  - Series R09 E2 Zipper Tube

## Features & Benefits

- 1 Zipper lids can be separated and joined at each link
- 2 Small pitch for low-noise and smooth operation
- 3 ‘Zipper-fast’ opening and closing
- 4 For high acceleration
- 5 Mounting bracket with integrated strain relief
- 6 Lightweight



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 09-20-038-0



e-chain®

1 Set 080-20-12PZ

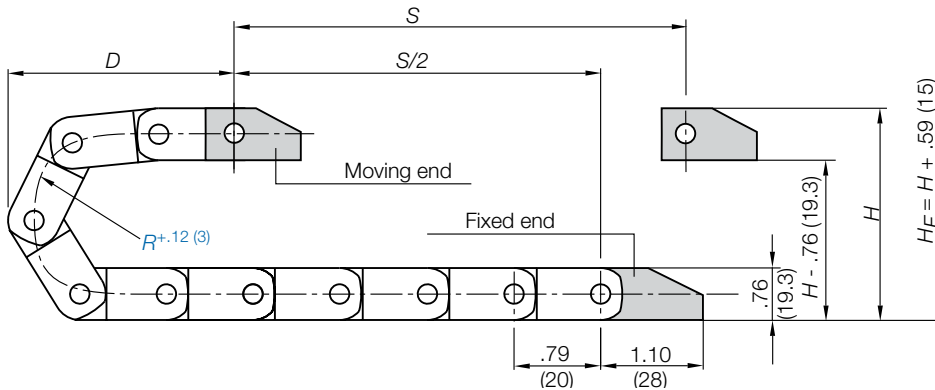
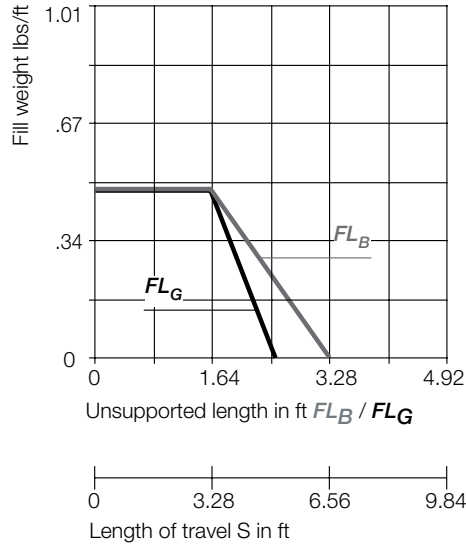
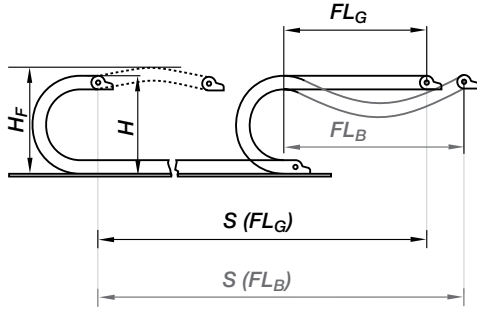


Mounting Bracket

# e-chain system® Zipper Series 09 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



## Short Travels - Unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

Pitch per link: = .79" (20 mm)  
Links per ft (m): = 15.24 (50)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .59 \text{ in. (15 mm)}$  (with .20 lbs/ft (0.3 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)
H*	2.95 (75)	3.74 (95)	4.53 (115)
D	2.68 (68)	3.07 (78)	3.46 (88)
K	5.12 (130)	6.30 (160)	7.68 (195)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

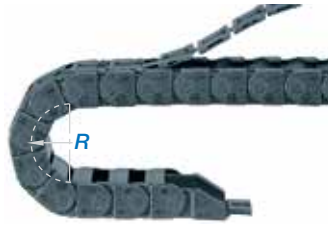
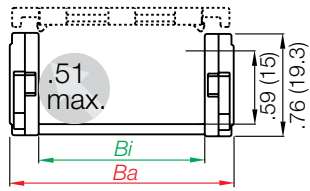
## Technical Data



Details of material properties

► Chapter 1

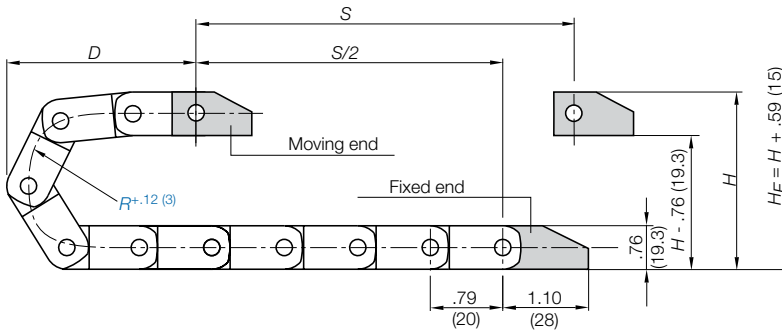
Series 09 - zip open along the outer radius



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



Supplement part number with required radius. Example: 09-20-038-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
09-10- <input type="text"/> -0	.39 (10)	.72 (18.2)	≈ 0.141 (0.21)
09-16- <input type="text"/> -0	.63 (16)	.95 (24.2)	≈ 0.161 (0.24)
09-20- <input type="text"/> -0	.79 (20)	1.11 (28.2)	≈ 0.168 (0.25)
09-30- <input type="text"/> -0	1.18 (30)	1.50 (38.2)	≈ 0.188 (0.28)
09-40- <input type="text"/> -0	1.57 (40)	1.90 (48.2)	≈ 0.208 (0.31)
09-50- <input type="text"/> -0	1.97 (50)	2.29 (58.2)	≈ 0.228 (0.34)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 09-20-038-0

	028	038	048
R	1.10 (028)	1.50 (038)	1.89 (048)
H*	2.95 (75)	3.74 (95)	4.53 (115)
D	2.68 (68)	3.07 (78)	3.46 (88)
K	5.12 (130)	6.30 (160)	7.68 (195)

Additional Accessories

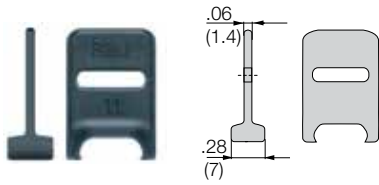


Quicksnap - the complete, detachable mounting unit, upon request

Part No.  
080-20-QS  
080-30-QS



### Interior Separation

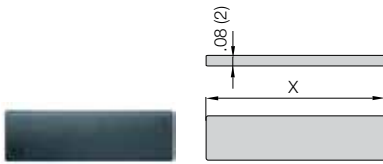


**Slotted separator**

Unassembled	Part No. B09-2
Assembled	Part No. B09-2-1

- **Separator B09-2** is used when vertical separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

### Full-width shelves - for the standard interior separation



**Full width shelf**

Unassembled	Part No. 110-X
Assembled	Part No. 111-X

- **Full width shelf** is used in applications with many thin cables with similar diameters.

Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
0.63 (16)	110-16	111-16	1.18 (30)	110-30	111-30	1.97 (50)	110-50	111-50
0.79 (20)	110-20	111-20	1.57 (40)	110-40	111-40			

### Mounting Brackets - Plastic

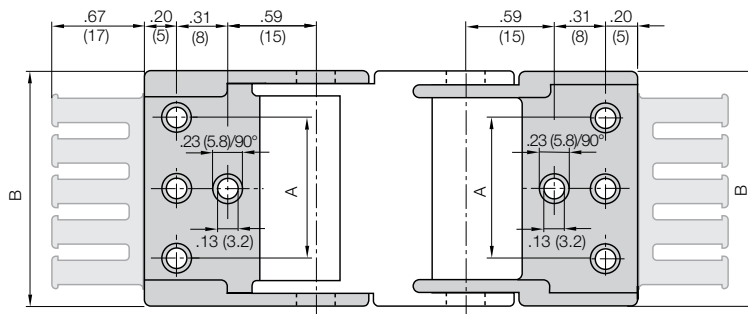
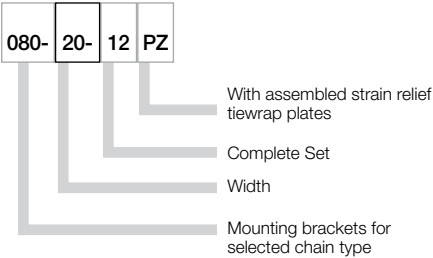


#### Plastic, pivoting

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates



#### Part Number Structure



#### Full set, for both ends:

080- 20- 12 Full set, each part with pin/bore

#### Single-part order:

080- 20- 1 Mounting bracket with bore

080- 20- 2 Mounting bracket with pin

080-10-12 - 080-20-12:

Center bores only

080-30-12 - 080-50-12:

Outer bores only

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)	Number of Teeth
09-10	080-10-12PZ	080-10-12	— —	.72 (18.2)	1
09-16	080-16-12PZ	080-16-12	— —	.95 (24.2)	2
09-20	080-20-12PZ	080-20-12	— —	1.11 (28.2)	2
09-30	080-30-12PZ	080-30-12	.87 (22)	1.50 (38.2)	3
09-40	080-40-12PZ	080-40-12	1.26 (32)	1.90 (48.2)	4
09-50	080-50-12PZ	080-50-12	1.65 (42)	2.29 (58.2)	5



### Price Index



Series R09

### Special Features / Options



Upon request: Cleanroom Class 1 (ISO class 3) tested by the Dryden Engineering Company, CA



iF-Design Award Winner



Flammability Class  
VDE 0304 IIC UL94 HB



Low-noise

### Assembly Tips



"Zipper" fast opening and closing

### Usage Guidelines



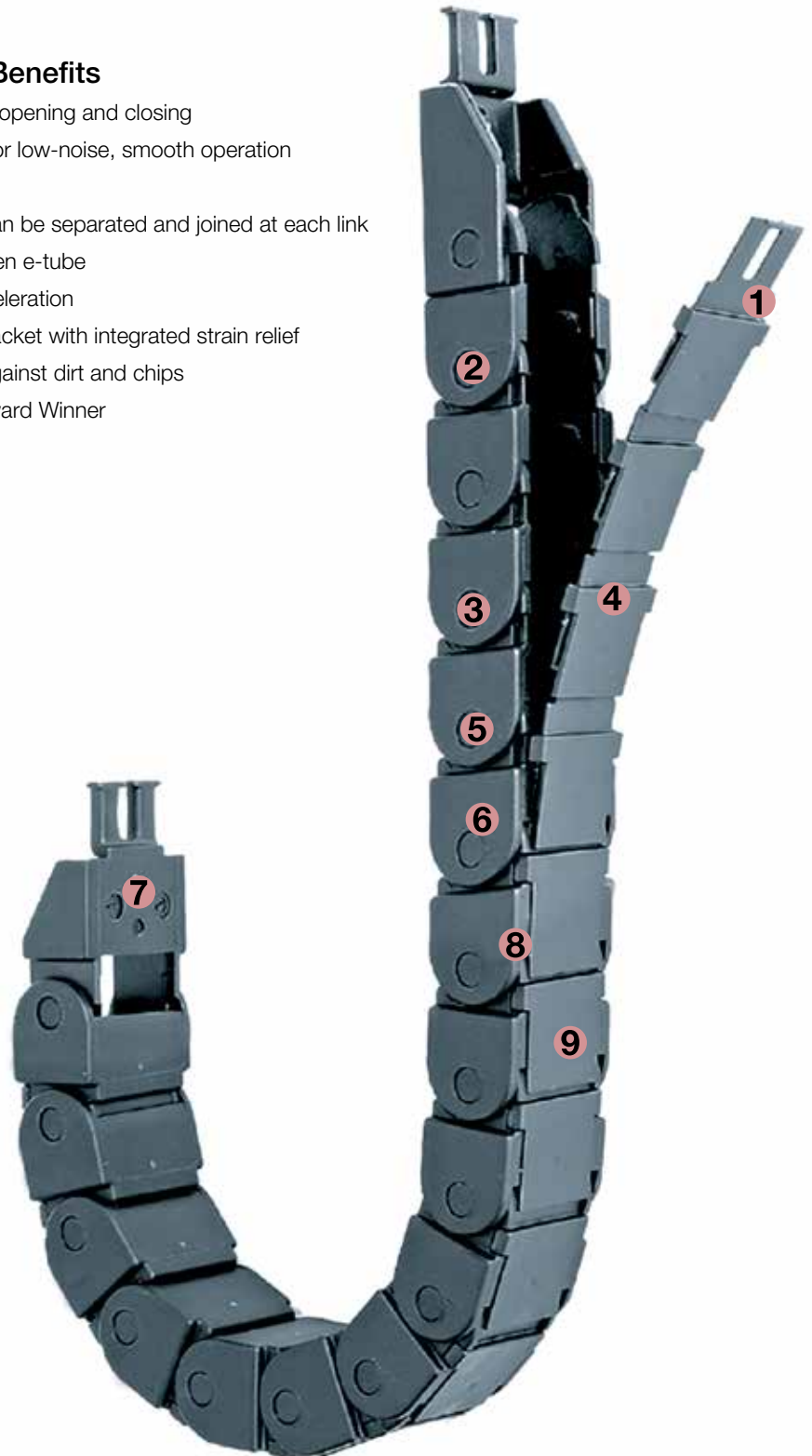
- If fast installation using zipper lids is required
- If protection against dust and dirt is required
- If quick insertion of cables with preassembled connectors is required



- If opening of the link is not necessary
  - **Series 08 E2 Micro**
- If cable installation without opening lids is necessary
  - **Series E08 E-Z Chain**

### Features & Benefits

- 1 "Zipper" fast opening and closing
- 2 Small pitch for low-noise, smooth operation
- 3 Lightweight
- 4 Zipper lids can be separated and joined at each link
- 5 Small zip-open e-tube
- 6 For high acceleration
- 7 Mounting bracket with integrated strain relief
- 8 Protection against dirt and chips
- 9 iF-Design Award Winner



### Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) R09-20-048-0

1 Set 080-20-12PZ

# e-chain system® E2 tubes

## Series R09

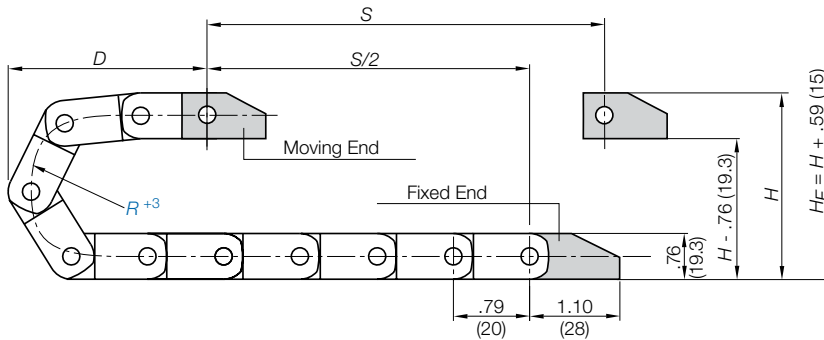
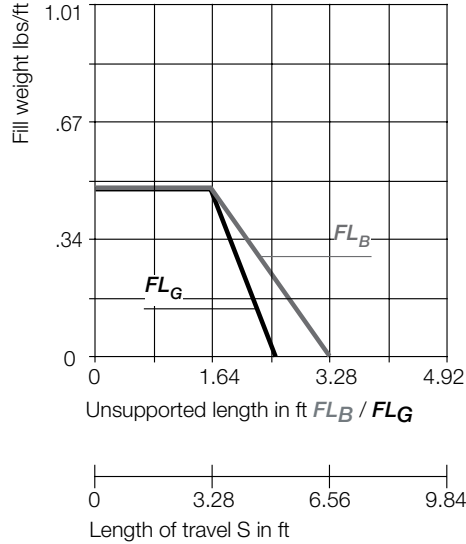
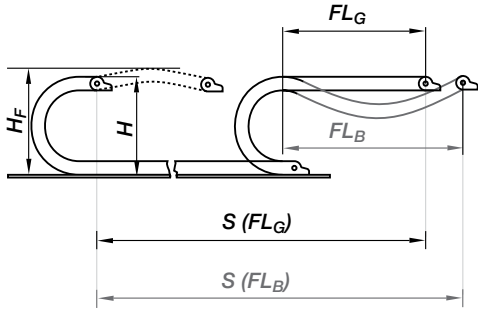
### Installation Dimensions



R09

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



#### Short Travels - Unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

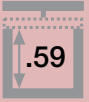
#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{Safety buffer}$
- $H_F = \text{Required clearance height}$

Pitch per link = .79" (20 mm)  
 Links per ft (m) = 15.24 (50)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .59 \text{ in. (15 mm)}$  (with .20 lbs/ft (0.3 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.89 (048)	2.95 (075)	3.94 (100)
H	4.53 (115)	6.65 (169)	8.62 (219)
D	3.46 (88)	4.53 (115)	5.51 (140)
K	7.68 (195)	11.02 (280)	13.98 (355)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

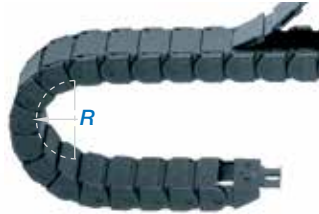
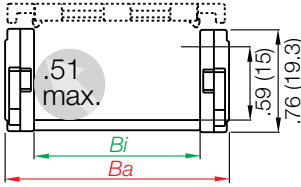
#### Technical Data



Details of material properties

► Chapter 1

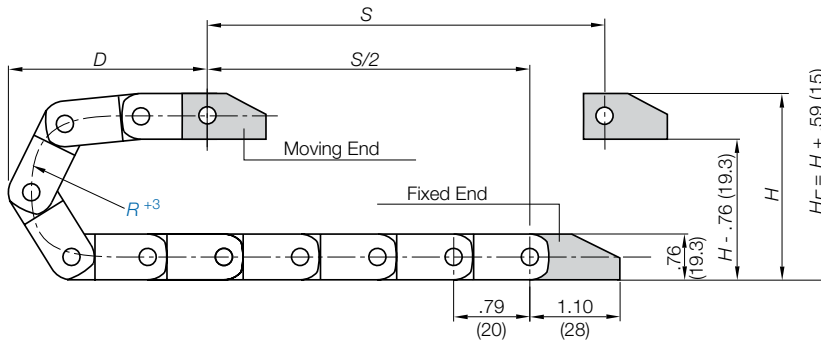
Series R09 - e-tube zip open along the outer radius



Part Number Structure



- Color - Black
- Bending radius
- Width
- Series



Supplement part number with required radius. Example: R09-20-048-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
R09-10- <input type="text"/> -0	.39 (10)	.72 (18.2)	≈0.155 (0.23)
R09-16- <input type="text"/> -0	.63 (16)	.95 (24.2)	≈0.175 (0.26)
R09-20- <input type="text"/> -0	.79 (20)	1.11 (28.2)	≈0.181 (0.27)
R09-30- <input type="text"/> -0	1.18 (30)	1.50 (38.2)	≈0.202 (0.30)
R09-40- <input type="text"/> -0	1.57 (40)	1.90 (48.2)	≈0.222 (0.33)
R09-50- <input type="text"/> -0	1.97 (50)	2.29 (58.2)	≈0.242 (0.36)

Choose from the radii below for all of the above sizes

Radius (mm) Example: R09-20-038-0

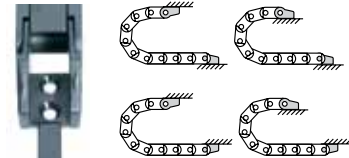
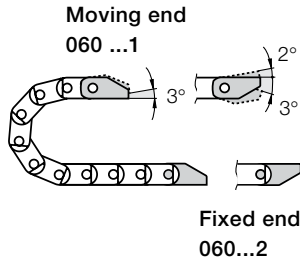
	048	075	100
R	1.89 (048)	2.95 (075)	3.94 (100)
H	4.53 (115)	6.65 (169)	8.62 (219)
D	3.46 (88)	4.53 (115)	5.51 (140)
K	7.68 (195)	11.02 (280)	13.98 (355)

Mounting Brackets - Plastic



Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiwrap plates

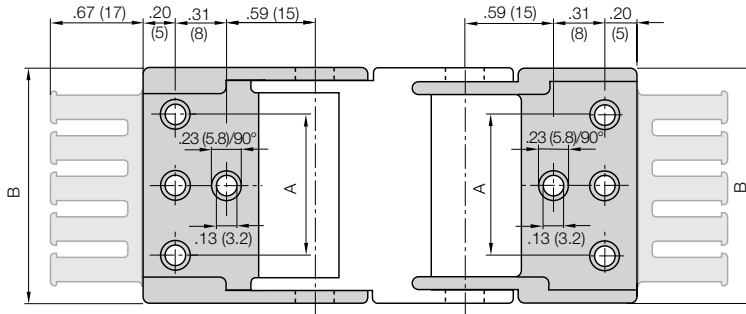


Possible installation configurations -

Part Number Structure



- With assembled strain relief tiwrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



Full set, for both ends:

080-20-12 Full set, each part with pin/bore

Single-part order:

080-20-1 Mounting bracket with bore

080-20-2 Mounting bracket with pin

080-10-12 - 080-20-12:

Center bores only

080-30-12 - 080-50-12:

Outer bores only

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A		Dimensions B		Number of Teeth
			in.	(mm)	in.	(mm)	
R09-10	080-10-12PZ	080-10-12	—	—	.72	(18.2)	1
R09-16	080-16-12PZ	080-16-12	—	—	.95	(24.2)	2
R09-20	080-20-12PZ	080-20-12	—	—	1.11	(28.2)	2
R09-30	080-30-12PZ	080-30-12	.87	(22)	1.50	(38.2)	3
R09-40	080-40-12PZ	080-40-12	1.26	(32)	1.90	(48.2)	4
R09-50	080-50-12PZ	080-50-12	1.65	(42)	2.29	(58.2)	5

Additional Accessories



Quicksnap - the complete, detachable mounting unit, upon request

Part No.

080-20-QS

080-30-QS



## Price Index



Series 15

## Special Features / Options



Upon request: Cleanroom Class 1 (ISO class 3) tested by the Dryden Engineering Company, CA



Flammability Class  
VDE 0304 IIC UL94 HB



Low-noise

## Assembly Tips



“Zipper-fast” opening and closing

## Usage Guidelines



- If fast, zipper-like accessibility to cables is required
- If interior separation is required
- If high stability and long service life are required



- If opening of the link is not necessary
  - Series 10 E2 Mini
- If torsion occurs
  - Series E14 E-Z Chain
- If the chain must snap-open along the inner radius
  - Series B15i E2 Mini

## Features & Benefits

- 1 Large pins and double stop dog for superior life and long unsupported length
- 2 ‘Zipper-fast’ opening and closing
- 3 Small pitch for low-noise, smooth
- 4 operation  
Zipper lids can be separated and joined at
- 5 each link  
Mounting bracket with integrated strain
- 6 relief  
For high acceleration



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **15-025-038-0**

e-chain®

With 2 separators **154** assembled every 2nd link

Interior Separation

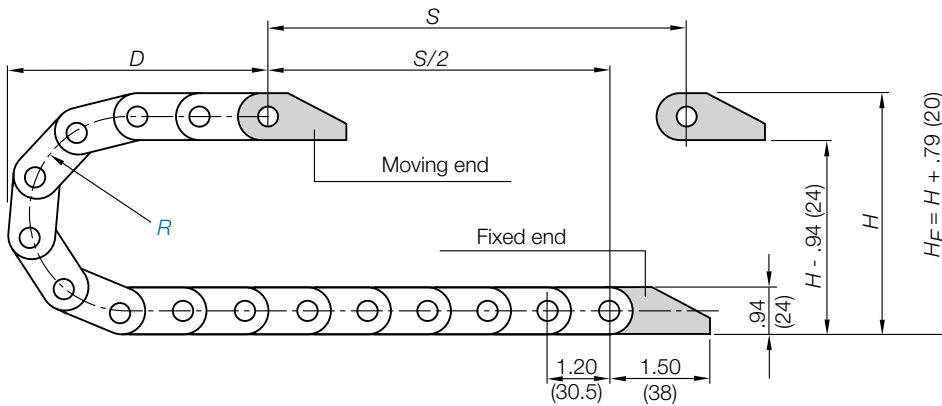
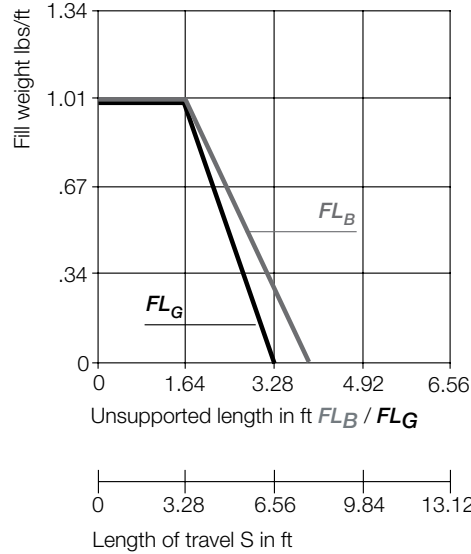
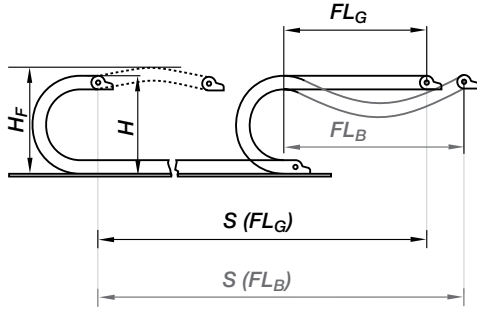
1 Set **1025-12PZ**

Mounting Bracket

# e-chain system® Zipper Series 15 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



## Short Travels - Unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

Pitch per link = 1.20" (30.5 mm)  
Links per ft (m) = 10.06 (33)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .79 \text{ in. (20 mm)}$  (with .67 lbs/ft (1.0 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
D	3.74 (95)	4.13 (105)	5.20 (132)	6.18 (157)	6.57 (167)	7.17 (182)	7.95 (202)	9.33 (237)
K	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data

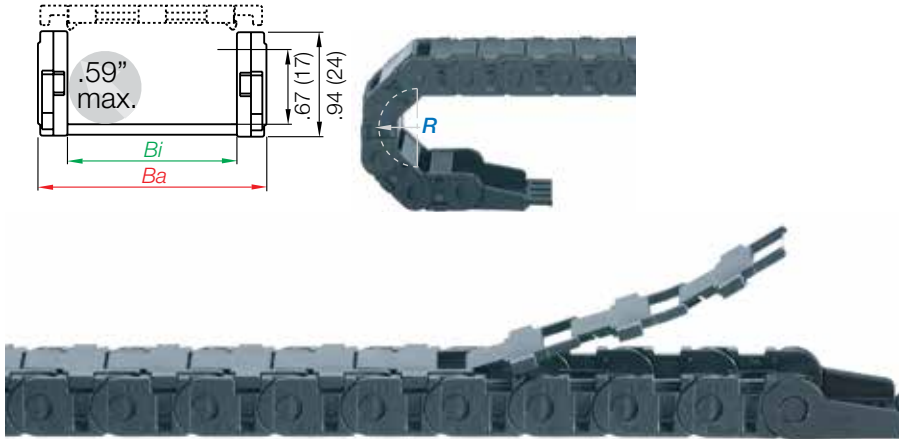


Details of material properties

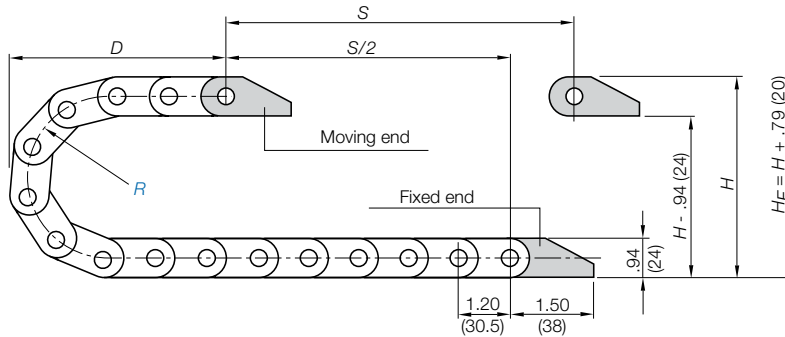
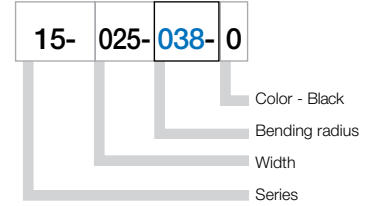
► Chapter 1



Series 15 - Zip-open along the outer radius



Part Number Structure



Supplement part number with required radius. Example: 15-025-038-0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number		Bi	Ba	Weight
Snap-open		in. (mm)	in. (mm)	lbs/ft (kg/m)
outer radius				
15-015-	<input type="text"/> -0	.59 (15)	1.02 (26)	≈ 0.235 (0.35)
15-025-	<input type="text"/> -0	.98 (25)	1.42 (36)	≈ 0.269 (0.40)
15-038-	<input type="text"/> -0	1.50 (38)	1.93 (49)	≈ 0.309 (0.46)
15-050-	<input type="text"/> -0	1.97 (50)	2.40 (61)	≈ 0.349 (0.52)
15-5-	<input type="text"/> -0	2.48 (63)	2.99 (76)	≈ 0.423 (0.63)
15-6	<input type="text"/> -0	3.15 (80)	3.70 (94)	≈ 0.470 (0.70)
15-7	<input type="text"/> -0	3.94 (100)	4.45 (113)	≈ 0.511 (0.76)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: 15-025-038-0

	038	048	075	100	110	125	145	180
R	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
D	3.74 (95)	4.13 (105)	5.20 (132)	6.18 (157)	6.57 (167)	7.17 (182)	7.95 (202)	9.33 (237)
K	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

0=Standard color black. For other colors see Chapter 1

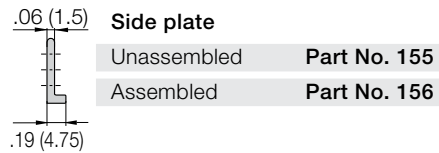
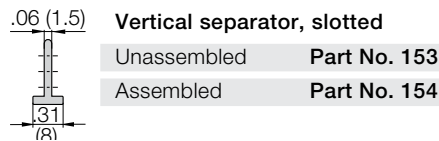
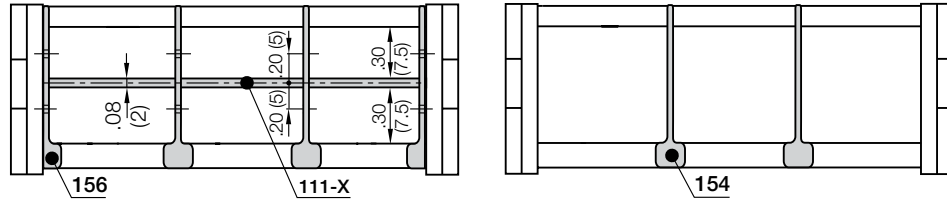


## Interior Separation



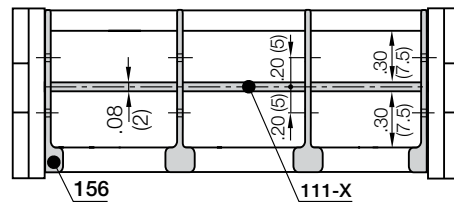
### Option 1: Vertical separators

Vertical separators are used if only a vertical subdivision of the e-chain® interior is required. A slotted separator is used for this subdivision. This separator can also be used with full-width shelves for a continuous horizontal subdivision. By standard, vertical separators are assembled every other e-chain® link.

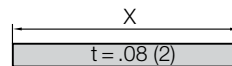


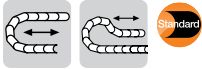
### Option 2: Full-width shelf

Interior separation with continuous horizontal subdivision is practical is using a large number of thin cables with similar or identical diameters.



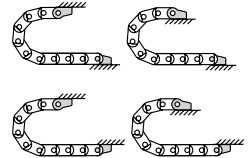
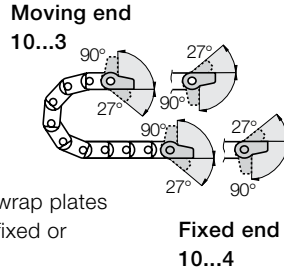
Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.59 (015)	110-15	111-15
.98 (025)	110-25	111-25
1.50 (038)	110-38	111-38
1.97 (050)	110-50	111-50
2.48 (063)	110-63	111-63
3.15 (080)	110-80	111-80
3.94 (100)	110-100	111-100



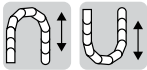


### Option 1: pivoting

- Well suited for space-restricted conditions
- Strain relief with detachable tiwrap plates
- Can be mounted on either the fixed or moving end of the chain
- Variable traverse angle for flexible assembly

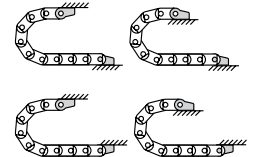
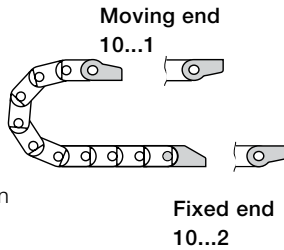


Possible installation configurations -



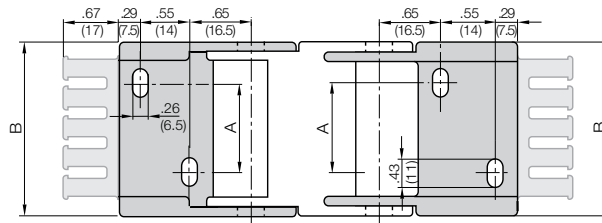
### Option 2: locking

- Extreme accelerations
- If space is limited for height
- Can be mounted on either the fixed or moving end of the chain

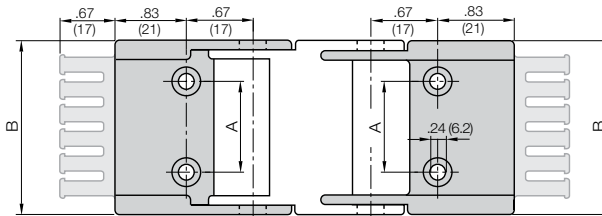


Possible installation configurations -

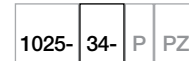
For e-chain  
15-015 to 15-050



For e-chain  
15-5 to 15-7



### Part Number Structure



- With tiwrap plate
- Without tiwrap plate
- Complete Set  
12 = Locking  
34 = Pivoting
- Mounting brackets for selected chain type

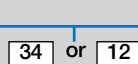
Part number examples are shown for pivoting brackets. For locking brackets fill in the blank with **12**

Part No. Full Set (pivoting)  
with Tiwrap Plate  
Series 15 with 25mm inner width  
1025-34PZ

Part No. Full Set (pivoting)  
without Tiwrap Plate  
Series 15 with 25 mm inner width  
1025-34P

Full set, for both ends:  
1025-34-PZ Full set, each part with pin/bore + tiwrap plate  
Single-part order:  
1025-3-PZ Mounting bracket with bore + tiwrap plate  
1025-4-PZ Mounting bracket with pin + tiwrap plate

For Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)	Number of Teeth
15-015	1015- <input type="checkbox"/> PZ	1015- <input type="checkbox"/> P	—	1.00 (25.5)	2
15-025	1025- <input type="checkbox"/> PZ	1025- <input type="checkbox"/> P	.39 (10)	1.40 (35.5)	3
15-038	1038- <input type="checkbox"/> PZ	1038- <input type="checkbox"/> P	.91 (23)	1.91 (48.5)	4
15-050	1050- <input type="checkbox"/> PZ	1050- <input type="checkbox"/> P	1.38 (35)	2.38 (60.5)	5
15-5	105- <input type="checkbox"/> PZ	105- <input type="checkbox"/> P	1.89 (48)	2.95 (75.0)	6
15-6	106- <input type="checkbox"/> PZ	106- <input type="checkbox"/> P	2.56 (65)	3.62 (92.0)	8
15-7	107- <input type="checkbox"/> PZ	107- <input type="checkbox"/> P	3.35 (85)	4.41 (112.0)	10



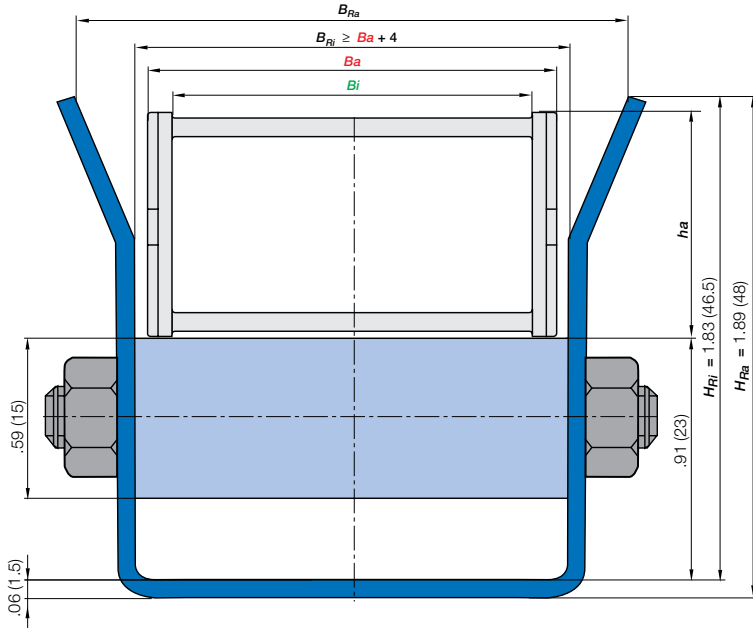
For pivoting brackets choose **34**  
For locking brackets choose **12**  
Example: 1025- PZ

# e-chain system® Zipper

## Series 15

### Guide Trough

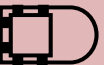
One-piece guide troughs made of steel are available for the Series 15 Zipper e-chains®. These guide troughs are available from stock for outer chain widths up to 4.45 in. (113 mm). For wider e-chains® and tubes, special solutions are possible with short lead times. No installation sets are required for these trough sizes since the guide troughs consist of a one-piece U-profile. The joint connection with this type of guide trough is specified individually for every application.



Dimensions Guide troughs 91-10 – 91-71

For Series	Part No.	BRa		BRi		Weight	
		in.	(mm)	in.	(mm)	lbs/ft	(kg/m)
<b>15-015</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-10</b>	1.59	(40.5)	1.18	(30)	1.01	(1.50)
Glide bar 6.56 ft. (2m section)	<b>91-11</b>	1.59	(40.5)	1.18	(30)	.30	(.45)
<b>15-025</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-20</b>	1.99	(50.5)	1.57	(40)	1.11	(1.65)
Glide bar 6.56 ft. (2m section)	<b>91-21</b>	1.99	(50.5)	1.57	(40)	.38	(.57)
<b>15-038</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-30</b>	2.46	(62.5)	2.05	(52)	1.21	(1.80)
Glide bar 6.56 ft. (2m section)	<b>91-31</b>	2.46	(62.5)	2.05	(52)	.46	(.68)
<b>15-050</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-40</b>	2.85	(72.5)	2.44	(62)	1.28	(1.90)
Glide bar 6.56 ft. (2m section)	<b>91-41</b>	2.85	(72.5)	2.44	(62)	.61	(.91)
<b>15-5</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-50</b>	3.60	(91.5)	3.19	(81)	1.52	(2.26)
Glide bar 6.56 ft. (2m section)	<b>91-51</b>	3.60	(91.5)	3.19	(81)	.84	(1.25)
<b>15-6</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-60</b>	4.27	(108.5)	3.86	(98)	1.83	(2.72)
Glide bar 6.56 ft. (2m section)	<b>91-61</b>	4.27	(108.5)	3.86	(98)	.91	(1.35)
<b>15-7</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-70</b>	5.06	(128.5)	4.65	(118)	2.13	(3.17)
Glide bar 6.56 ft. (2m section)	<b>91-71</b>	5.06	(128.5)	4.65	(118)	1.14	(1.70)

Trough material in general: St 1203 galvanized



### Price Index

Series R15

### Special Features / Options

**Clean-Room** Upon request: Cleanroom Class 1 (ISO class 3) tested by the Dryden Engineering Company, CA

**EX** ESD classification: Electrically conductive ESD/ATEX version upon request

**UL** UL94-V2 classifications upon request

**Headphones icon** Low-noise

### Assembly Tips



"Zipper-fast" opening and closing

### Usage Guidelines



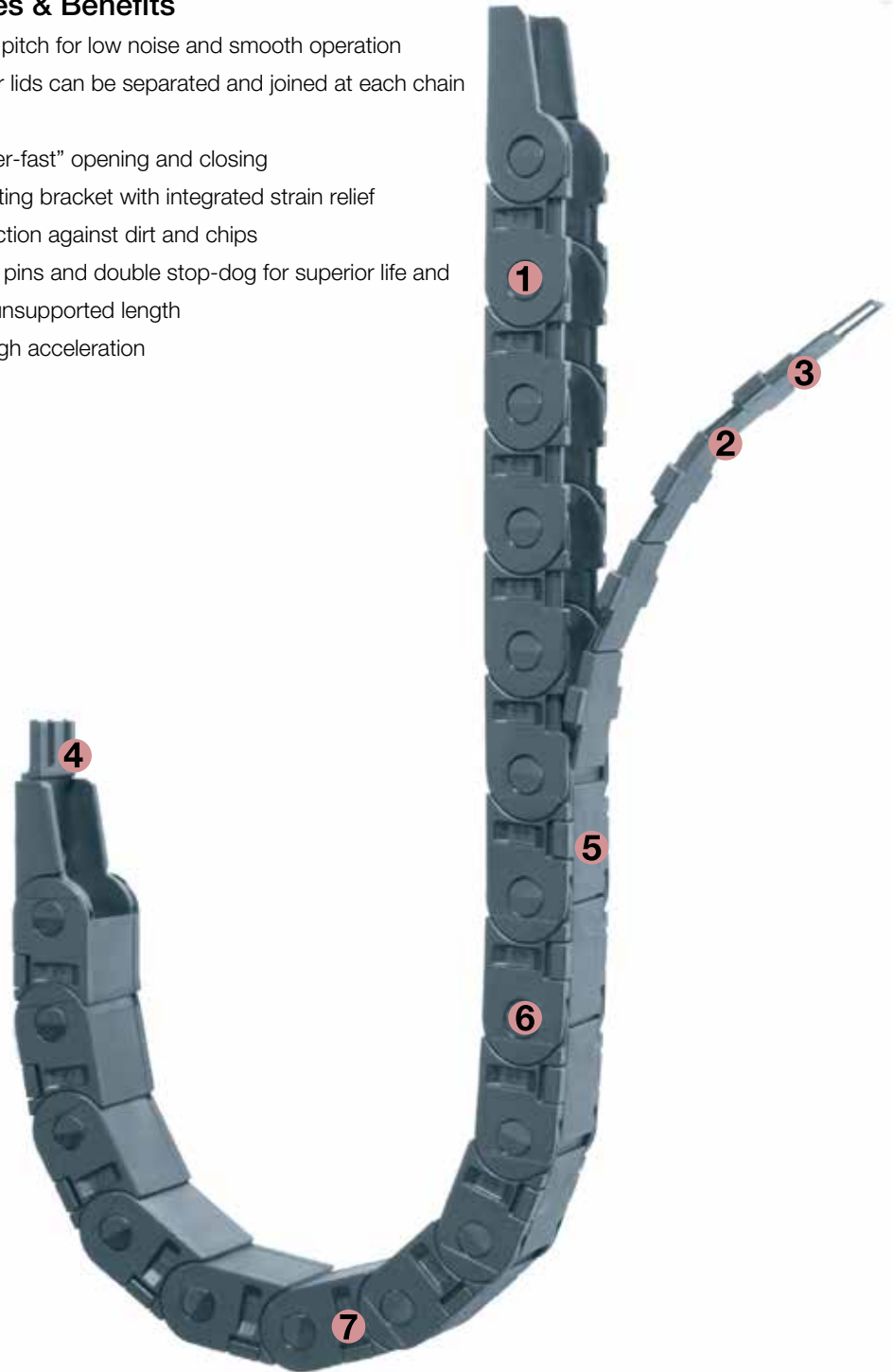
- If extremely quick, zipper-like access to cables is required
- If chip protection is required
- If quick, easy insertion of cables with preassembled connectors is required
- If aesthetic design is required



- If opening of the link is not necessary
  - **Series 10 E2 mini**
- If the chain must snap-open along the inner radius
  - **Series B15i E2 mini**

### Features & Benefits

- 1 Small pitch for low noise and smooth operation
- 2 Zipper lids can be separated and joined at each chain link
- 3 "Zipper-fast" opening and closing
- 4 Mounting bracket with integrated strain relief
- 5 Protection against dirt and chips
- 6 Large pins and double stop-dog for superior life and long unsupported length
- 7 For high acceleration



### Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **R15-025-063-0**

e-chain®

With 2 separators **R154** assembled every 2nd link

Interior Separation

1 Set **1025-12PZ**

Mounting Bracket

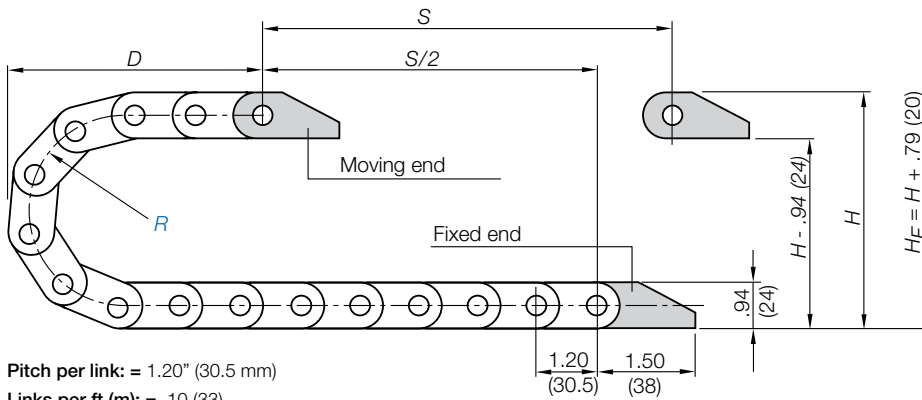
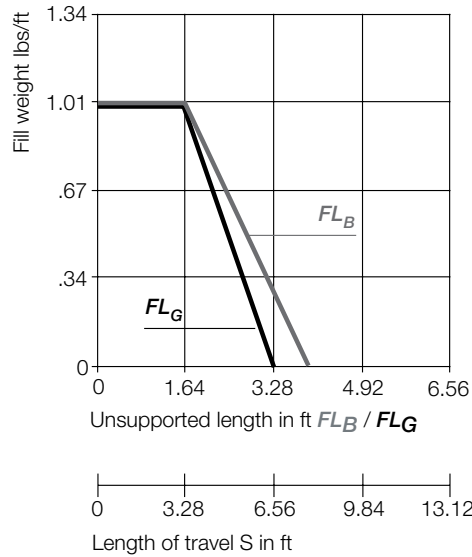
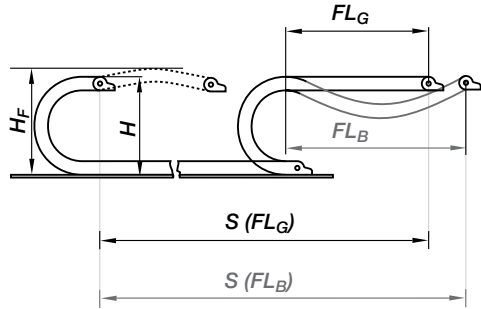
# e-chain system® E2 tubes

## Series R15

### Installation Dimensions

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
Links per ft (m) = 10 (33)

For center mount applications:  
Chain length =  $S/2 + K$

The required clearance height:  $H_F = H + .79$  in. (20 mm) (with .67 lbs/ft (1.0 kg/m) fill weight).  
Please consult igus® if space is particularly restricted.

R	2.48 (063)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	5.91 (150)	6.89 (175)	8.86 (225)	9.65 (245)	10.83 (275)	12.40 (315)	15.16 (385)
D	4.72 (120)	5.71 (145)	6.10 (155)	6.69 (170)	7.48 (190)	8.86 (225)	10.98 (279)
K	10.24 (260)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)



R15

#### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 6.56 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

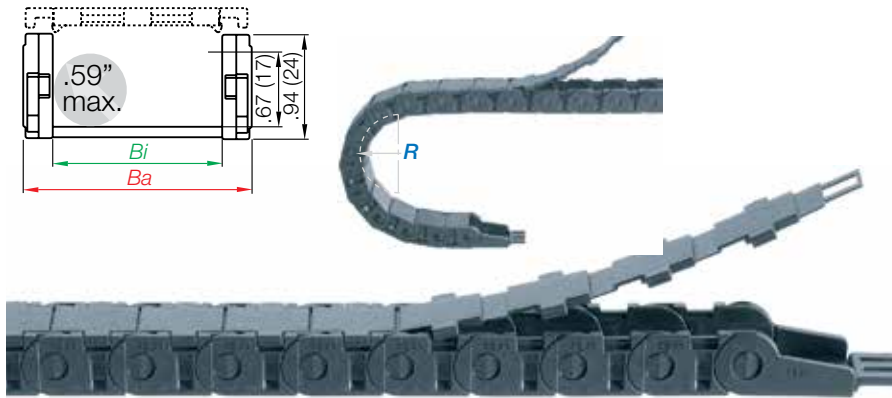
#### Technical Data



Details of material properties

► Chapter 1

Series R15 - e-tube snap-open along the outer radius

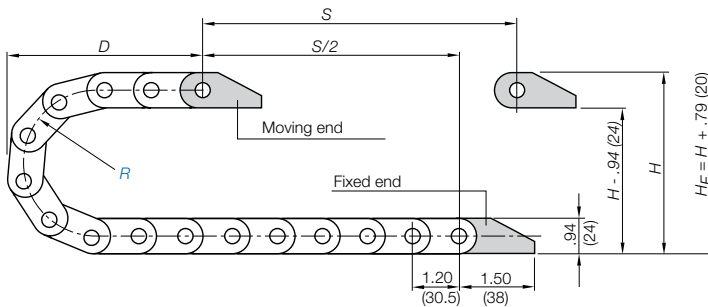


Part Number Structure

R15-025-063-0

- Color - Black
- Bending radius
- Width
- Series

Telephone 1-800-521-2747



Pitch per link: = 1.20" (30.5 mm)  
Links per ft (m): = 10 (33)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

Supplement part number with required radius. Example: R15-025-063-0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10 (33)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
R15-025-□ -0	.98 (25)	1.42 (36)	≈ 0.269 (0.40)
R15-038-□ -0	1.50 (38)	1.93 (49)	≈ 0.309 (0.46)
R15-063-□ -0	2.48 (63)	2.99 (76)	≈ 0.423 (0.63)
R15-080-□ -0	3.15 (80)	3.70 (94)	≈ 0.470 (0.70)

Choose from the radii below for all of the above sizes

Radius (mm) Example: R15-025-063-0

	063	075	100	110	125	145	180
R	2.48 (063)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	5.91 (150)	6.89 (175)	8.86 (225)	9.65 (245)	10.83 (275)	12.40 (315)	15.16 (385)
D	4.72 (120)	5.71 (145)	6.10 (155)	6.69 (170)	7.48 (190)	8.86 (225)	10.98 (279)
K	10.24 (260)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

Internet: igus.com  
email: sales@igus.com  
QuickSpec: igus.com/quickSpec

# e-chain system® E2 tubes

## Series R15

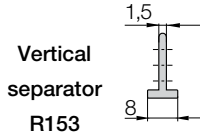
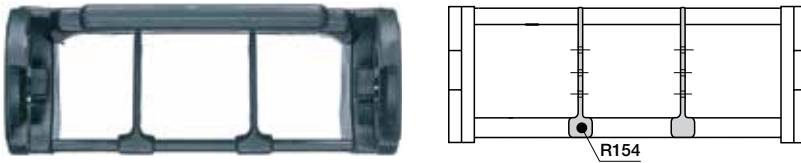
### Interior Separation



R15

#### Option 1: Vertical separators and spacers

Vertical separators are used if a vertical subdivision of the e-chain® interior is required. By standard, vertical separators are assembled every other e-chain® link. .



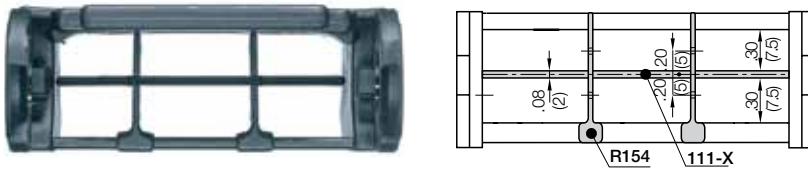
#### Vertical Separator

Unassembled	<b>Part No. R153</b>
Assembled	<b>Part No. R154</b>

- **Standard separator R153 for e-chains®**  
This separator is used for general subdivision of e-chain®.

#### Option 2: Full-width shelf

It is ideal for use in applications involving many thin cables with similar or identical diameters. This shelf slides into place and spans the entire width of the chain.



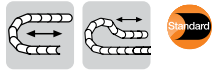
#### Shelves 110-XX

Shelves can be inserted at 3 different heights in .20" (5mm) increments

Width X in. (mm)	Part No.	
	Unassembled	Assembled
0.98 (25)	<b>110-25</b>	<b>111-25</b>
1.50 (38)	<b>110-38</b>	<b>111-38</b>
2.68 (63)	<b>110-63</b>	<b>111-63</b>
3.15 (80)	<b>110-80</b>	<b>111-80</b>

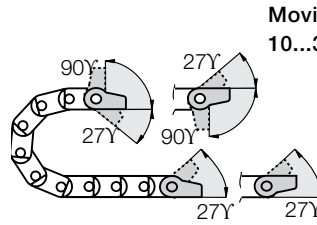
PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)





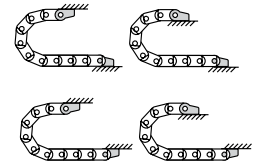
**Option 1: pivoting**

- Recommended for unsupported and gliding applications
- Well suited for tight installation conditions
- Available with or without strain relief tiwrap plates
- Variable traverse angle for flexible assembly

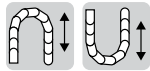


Moving end  
10...3P(Z)

Fixed end  
10...4

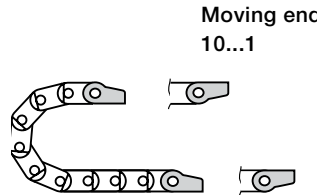


Possible installation configurations -



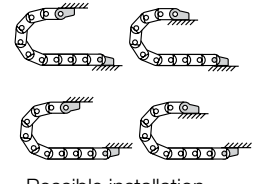
**Option 2: locking**

- Recommended for unsupported and gliding applications
- Extreme speed and/or accelerations
- For height restricted applications



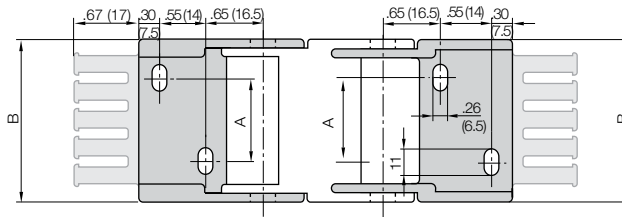
Moving end  
10...1

Fixed end  
10...2

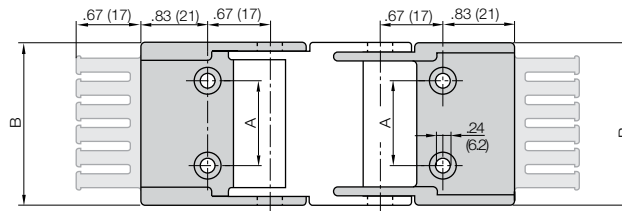


Possible installation configurations -

For e-chain  
R15-015 to R15-050



For e-chain  
R15-063 to R15-100



**Part Number Structure**

1025- 34- P PZ

- With tiwrap plate
- Without tiwrap plate
- Complete Set  
12 = Pivoting  
34 = Locking
- Mounting brackets for selected chain type

Part number examples are shown for pivoting brackets. For locking brackets fill in the blank with

Part No. Full Set (pivoting)  
with Tiwrap Plate  
Series R15 with 25mm inner width  
1025-34PZ

Part No. Full Set (pivoting)  
without Tiwrap Plate  
Series R15 with 25 mm inner width  
1025-34P

Full set, for both ends:  
1025-  -  Full set, each part with pin/bore + tiwrap plate

Single-part order:  
1025-  -  Mounting bracket with bore + tiwrap plate  
1025-  -  Mounting bracket with pin + tiwrap plate

For Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)	Number of Teeth
R15-025	1025- <input type="text" value="34"/> PZ	1025- <input type="text" value="P"/> P	.39 (10)	1.40 (35.5)	3
R15-038	1038- <input type="text" value="34"/> PZ	1038- <input type="text" value="P"/> P	.91 (23)	1.91 (48.5)	4
R15-063	105- <input type="text" value="34"/> PZ	105- <input type="text" value="P"/> P	1.89 (48)	2.95 (75.0)	6
R15-080	106- <input type="text" value="34"/> PZ	106- <input type="text" value="P"/> P	2.56 (65)	3.62 (92.0)	8

or

For pivoting brackets choose   
For locking brackets choose   
Example: 1025-  PZ





## Price Index



Series 17

## Special Features / Options



Upon request: Cleanroom Class 1  
(ISO class 3) tested by the Dryden  
Engineering Company, CA



Flammability Class  
VDE 0304 IIC UL94 HB



Low-noise

## Assembly Tips



“Zipper-fast” opening and closing

## Usage Guidelines



- If fast, zipper-like accessibility to cables is required
- If interior separation is required
- If quiet operation is required



- If individual links must open as opposed to ‘zipping’ open  
➤ **Series B17 E2 Mini**

## Features & Benefits

- 1 Interior separation possible
- 2 Small pitch for low-noise, smooth operation
- 3 ‘Zipper-fast’ opening and closing
- 4 For high acceleration
- 5 Zipper lids can be separated and joined at each link
- 6 Mounting bracket with integrated strain relief



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **17-2-063-0**

e-chain®

With 2 separators **172** assembled every 2nd link

Interior Separation

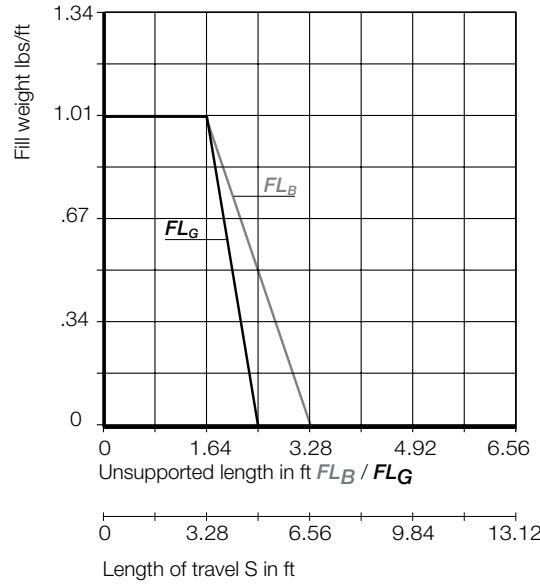
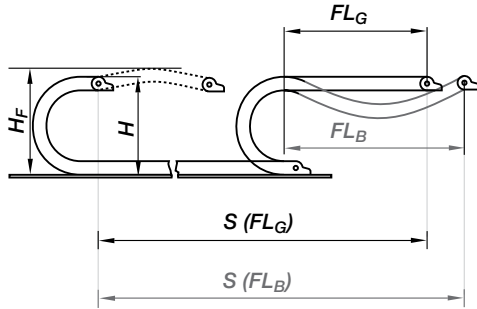
1 Set **117-2-12PZ**

Mounting Bracket

# e-chain system® Zipper Series 17 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



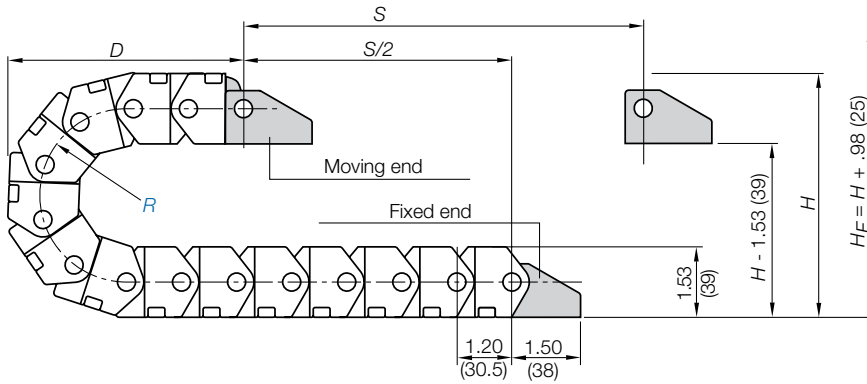
### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Pitch per link = 1.20" (30.5 mm)  
 Links per ft (m) = 10.06 (33)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .98$  in. (25 mm) (with 1.01 lbs/ft (1.5 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)
H	6.50 (165)	7.44 (189)	9.41 (239)	11.38 (289)
D	5.04 (128)	5.51 (140)	6.50 (165)	7.48 (190)
K	10.24 (260)	11.81 (300)	14.96 (380)	17.91 (455)

Speed / acceleration $FL_G$	max. 6.56 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

### Technical Data

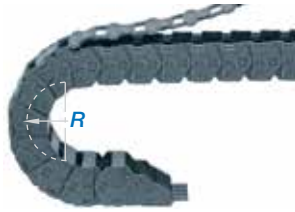
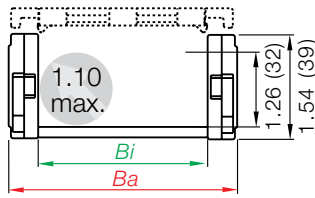


Details of material properties

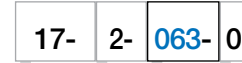
► Chapter 1



Series 17 - Zip-open along the outer radius - Standard



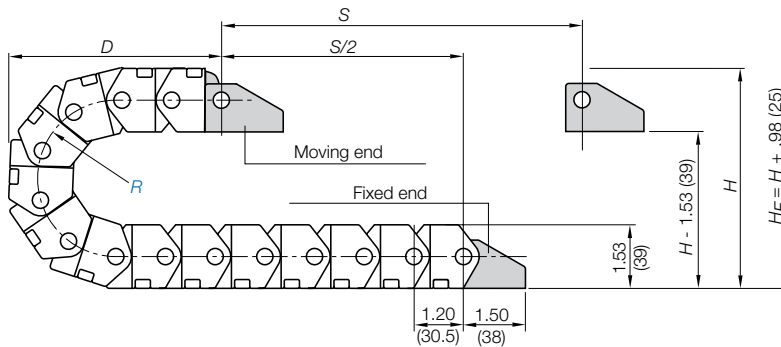
Part Number Structure



- Color - Black
- Bending radius
- Width
- Series



Telephone 1-800-521-2747



Supplement part number with required radius. Example: 17-1-**063**-0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
17-1- <input type="text"/> -0	.59 (15)	1.02 (26)	≈ 0.349 (0.52)
17-2- <input type="text"/> -0	.98 (25)	1.42 (36)	≈ 0.396 (0.59)
17-3- <input type="text"/> -0	1.50 (38)	1.93 (49)	≈ 0.437 (0.65)
17-4- <input type="text"/> -0	1.97 (50)	2.40 (61)	≈ 0.470 (0.70)
17-5- <input type="text"/> -0	2.48 (63)	2.99 (76)	≈ 0.558 (0.83)
17-6- <input type="text"/> -0	3.15 (80)	3.66 (93)	≈ 0.618 (0.92)
17-7- <input type="text"/> -0	3.94 (100)	4.45 (113)	≈ 0.712 (1.06)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: 17-1-**063**-0

	<b>063</b>	<b>075</b>	<b>100</b>	<b>125</b>
R	2.48 (63)	2.95 (75)	3.94 (100)	4.92 (125)
H	6.50 (165)	7.44 (189)	9.41 (239)	11.38 (289)
D	5.04 (128)	5.51 (140)	6.50 (165)	7.48 (190)
K	10.24 (260)	11.81 (300)	14.96 (380)	17.91 (455)

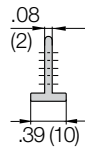
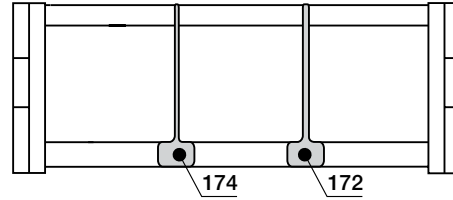
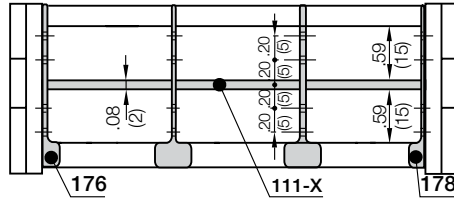
0=Standard color black. For other colors see Chapter 1

Internet: [igus.com](http://igus.com)  
email: [sales@igus.com](mailto:sales@igus.com)  
QuickSpec: [igus.com/quickspec](http://igus.com/quickspec)

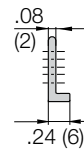


**Option 1: Vertical separators**

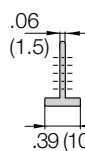
Vertical separators are used if only a vertical subdivision of the e-chain® interior is required. A slotted separator is used for this subdivision. This separator can also be used with full-width shelves for a continuous horizontal subdivision. By standard, vertical separators are assembled every other e-chain® link.



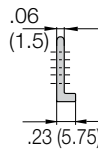
**Vertical Separator for 17-1 to 17-4**  
 Unassembled **Part No. 171**  
 Assembled **Part No. 172**



**Side Plate for 17-1 to 17-4**  
 Unassembled **Part No. 175**  
 Assembled **Part No. 176**



**Vertical Separator for 17-5 to 17-7**  
 Unassembled **Part No. 173**  
 Assembled **Part No. 174**

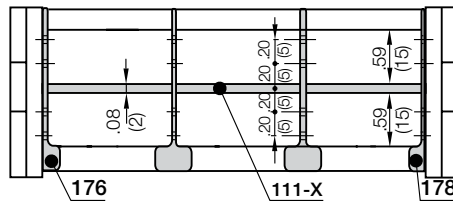


**Side plate for 17-5 to 17-7**  
 Unassembled **Part No. 177**  
 Assembled **Part No. 178**

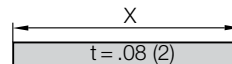


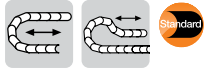
**Option 2: Full-width shelf**

Interior separation with continuous horizontal subdivision is practical is using a large number of thin cables with similar or identical diameters.



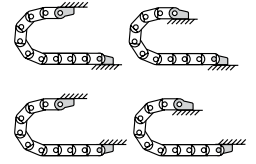
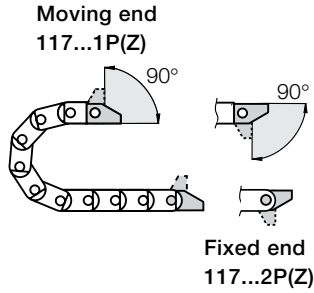
Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.59 (015)	110-15	111-15
.98 (025)	110-25	111-25
1.50 (038)	110-38	111-38
1.97 (050)	110-50	111-50
2.48 (063)	110-63	111-63
3.15 (080)	110-80	111-80
3.94 (100)	110-100	111-100



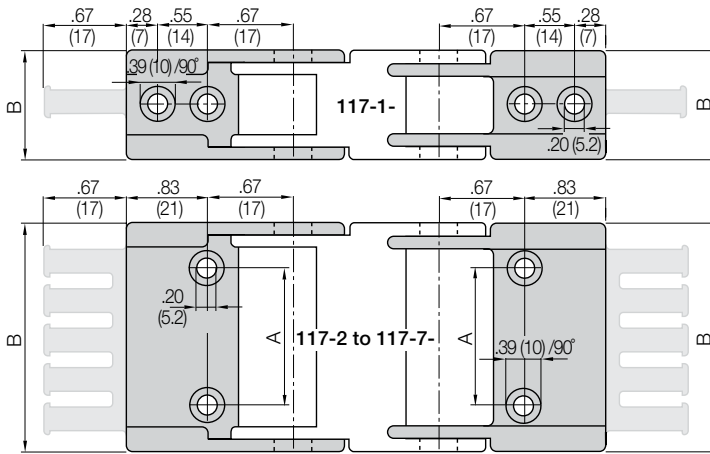


### Option 1: pivoting

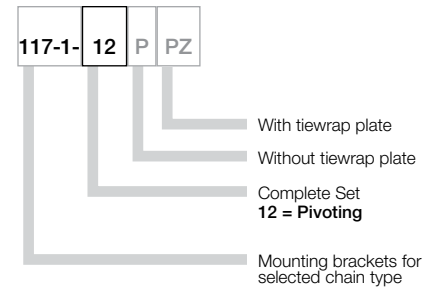
- One-piece mounting bracket
- Corrosion resistant
- Available pre-assembled
- Inner and outer attachment possible
- With our without strain relief tiewrap plates



Possible installation configurations -



### Part Number Structure



#### Full set, for both ends:

**117-1-12-PZ** Full set, each part with pin/bore + tiewrap plate

#### Single-part order:

**117-1-1-PZ** Mounting bracket with bore + tiewrap plate

**117-1-2-PZ** Mounting bracket with pin + tiewrap plate

For Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Number of Teeth	Dimension A in. (mm)	Dimensions B in. (mm)
17-1	117-1-12PZ	117-1-12P	2	— —	1.00 (25.5)
17-2	117-2-12PZ	117-2-12P	3	.47 (12)	1.40 (35.5)
17-3	117-3-12PZ	117-3-12P	4	.98 (25)	1.91 (48.5)
17-4	117-4-12PZ	117-4-12P	5	1.46 (37)	2.38 (60.5)
17-5	117-5-12PZ	117-5-12P	6	1.89 (48)	2.99 (76.0)
17-6	117-6-12PZ	117-6-12P	8	2.56 (65)	3.66 (93.0)
17-7	117-7-12PZ	117-7-12P	10	3.35 (85)	4.45 (113.0)

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



## Price Index

Series R17

## Special Features / Options

**Clean-Room** Upon request: Cleanroom Class 1 (ISO class 3) tested by the Dryden Engineering Company, CA

**ESD** ESD classification: Electrically conductive ESD/ATEX version upon request

**UL** UL94-V2 classifications upon request

**Headphones** Low-noise

## Assembly Tips



“Zipper-fast” opening and closing

## Usage Guidelines



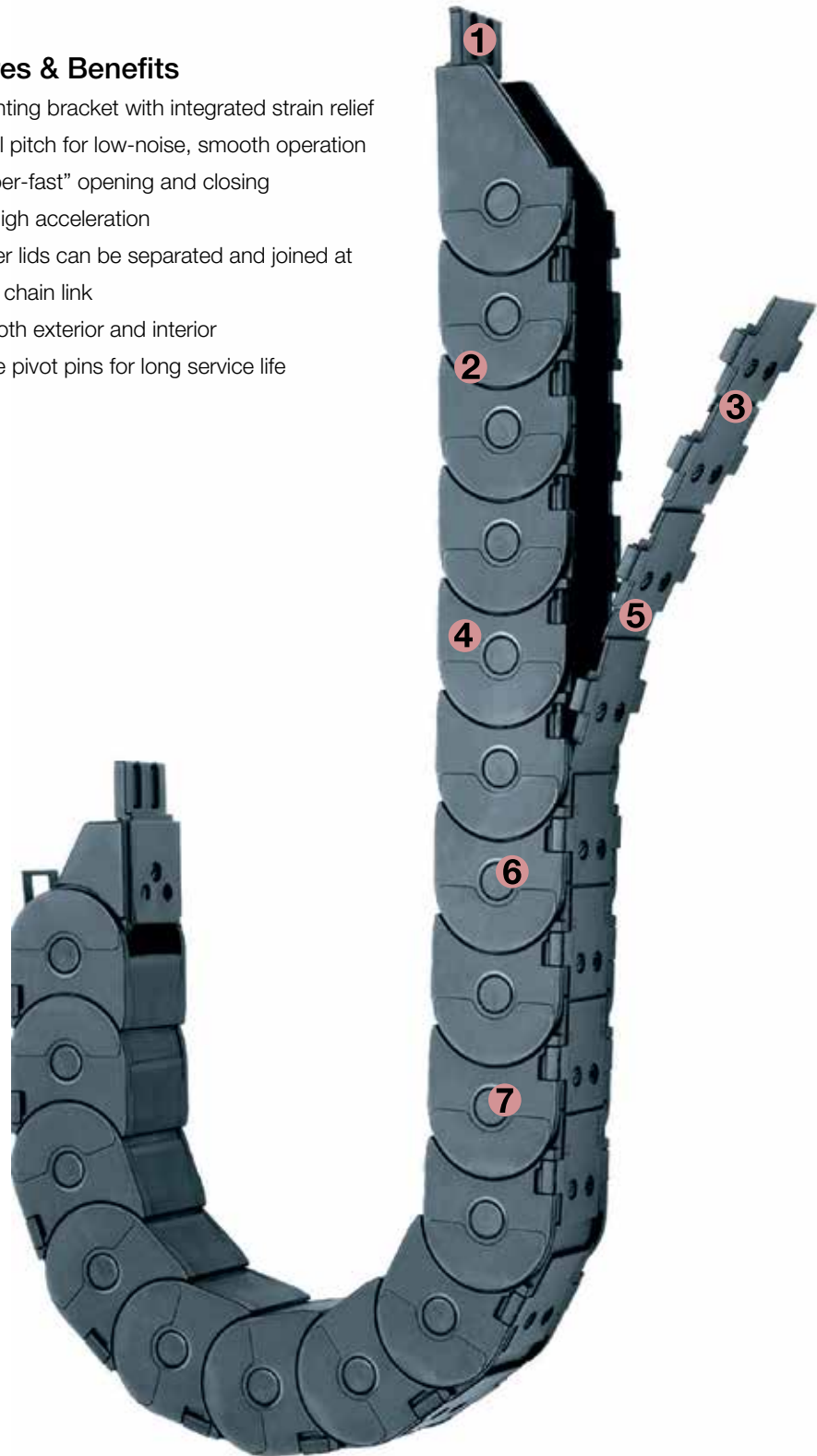
- If extremely quick, zipper-like access to cables is required
- If chip protection is required
- If quick, easy insertion of cables with preassembled connectors is required
- If aesthetic design is required



- If cable installation without opening lids is possible  
➤ **Series E16 E-Z Chain**

## Features & Benefits

- 1 Mounting bracket with integrated strain relief
- 2 Small pitch for low-noise, smooth operation
- 3 “Zipper-fast” opening and closing
- 4 For high acceleration
- 5 Zipper lids can be separated and joined at each chain link
- 6 Smooth exterior and interior
- 7 Large pivot pins for long service life



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **R17-025-063-0**

e-chain®

With 2 separators **R172** assembled every 2nd link

Interior Separation

1 Set **117-025-12PZ**

Mounting Bracket



# e-chain system® E2 tubes

## Series R17

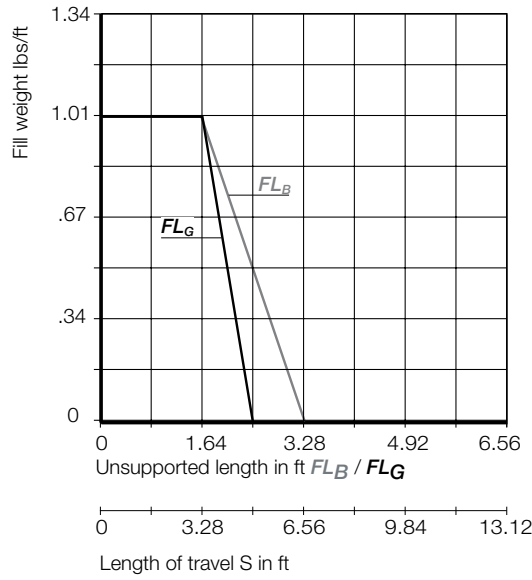
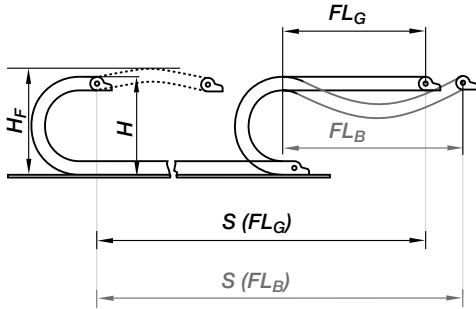
### Installation Dimensions



R17

#### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



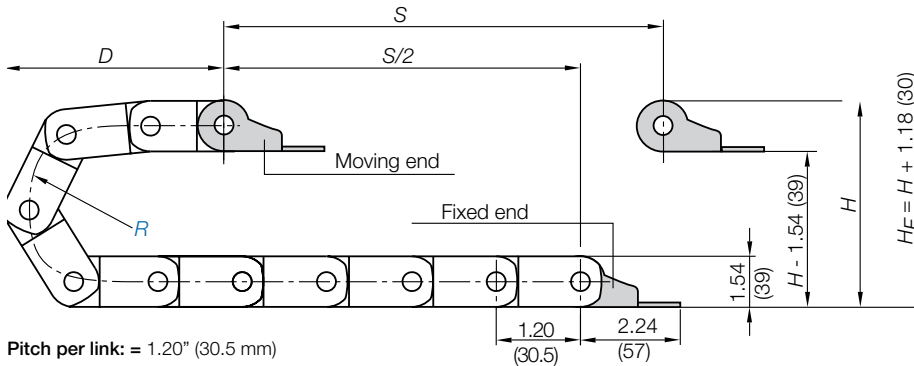
#### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

#### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height



Pitch per link = 1.20" (30.5 mm)

Links per ft (m) = 10 (33)

For center mount applications:

Chain length =  $S/2 + K$

The required clearance height:  $H_f = H + 1.18 \text{ in. (30 mm)}$  (with .67 lbs/ft (1.0 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)
H	6.50 (165)	7.44 (189)	9.41 (239)	11.38 (289)
D	4.53 (115)	5.12 (130)	6.10 (155)	7.09 (180)
K	10.83 (275)	12.01 (305)	15.55 (395)	18.70 (475)

Speed / acceleration $FL_G$	max. 6.56 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.81 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

#### Technical Data



Details of material properties

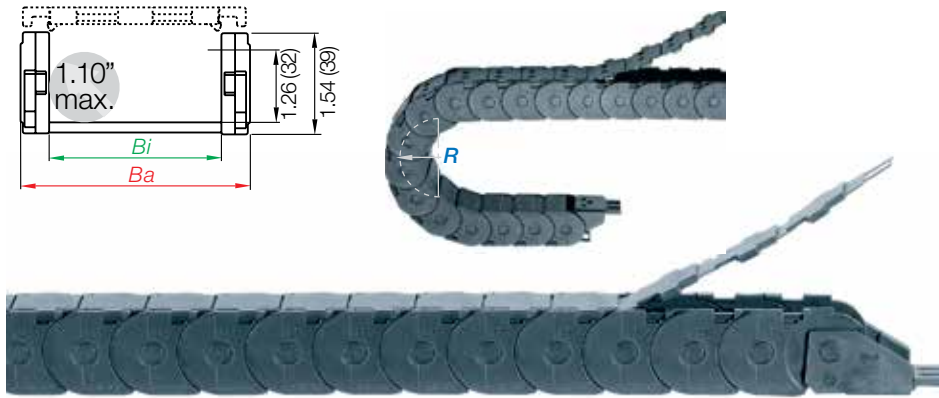
► Chapter 1



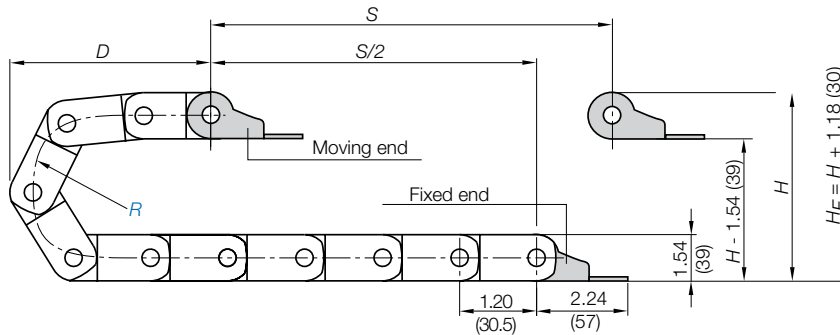
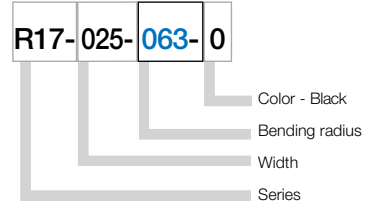
PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Series R17 - e-tube snap-open along the outer radius



Part Number Structure



Pitch per link: = 1.20" (30.5 mm)  
 Links per ft (m): = 10 (33)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

Supplement part number with required radius. Example: R17-025-063-0  
 Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10 (33)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
R17-015-□-0	.59 (15)	1.02 (26)	≈ 0.349 (0.52)
R17-025-□-0	.98 (25)	1.93 (49)	≈ 0.396 (0.59)
R17-063-□-0	2.48 (63)	2.99 (76)	≈ 0.558 (0.83)

Choose from the radii below for all of the above sizes

Radius (mm) Example: R17-025-063-0

	063	075	100	125
R	2.48 (63)	2.95 (75)	3.94 (100)	4.92 (125)
H	6.50 (165)	7.44 (189)	9.41 (239)	11.38 (289)
D	4.53 (115)	5.12 (130)	6.10 (155)	7.09 (180)
K	10.83 (275)	12.01 (305)	15.55 (395)	18.70 (475)

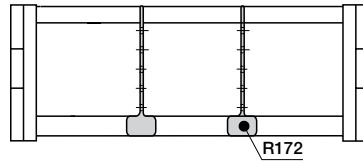
# e-chain<sup>®</sup> E2 tubes Series R17 Interior Separation



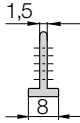
R17

## Option 1: Vertical separators and spacers

Vertical separators are used if a vertical subdivision of the e-chain<sup>®</sup> interior is required. By standard, vertical separators are assembled every other e-chain<sup>®</sup> link. .



Vertical separator  
R171



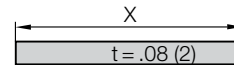
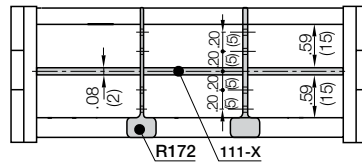
### Vertical Separator

Unassembled **Part No. R171**  
Assembled **Part No. R172**

- **Standard separator R171 for e-chains<sup>®</sup>**  
This separator is used for general subdivision of e-chain<sup>®</sup>.

## Option 2: Full-width shelf

It is ideal for use in applications involving many thin cables with similar or identical diameters. This shelf slides into place and spans the entire width of the chain.



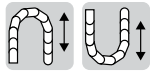
### Shelves 110-XX

Shelves can be inserted at 5 different heights in .20" (5mm) increments

Width X in. (mm)	Part No.	
	Unassembled	Assembled
0.59 (15)	<b>110-15</b>	<b>111-15</b>
0.98 (25)	<b>110-25</b>	<b>111-25</b>
1.50 (38)	<b>110-38</b>	<b>111-38</b>
2.68 (63)	<b>110-63</b>	<b>111-63</b>
3.15 (80)	<b>110-80</b>	<b>111-80</b>

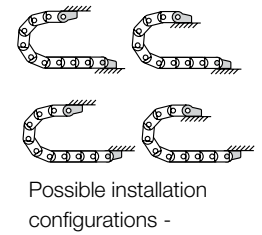
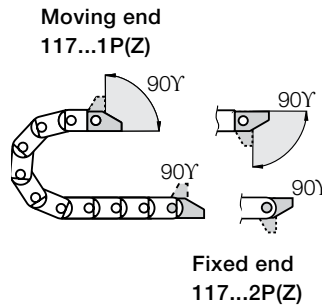
PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)





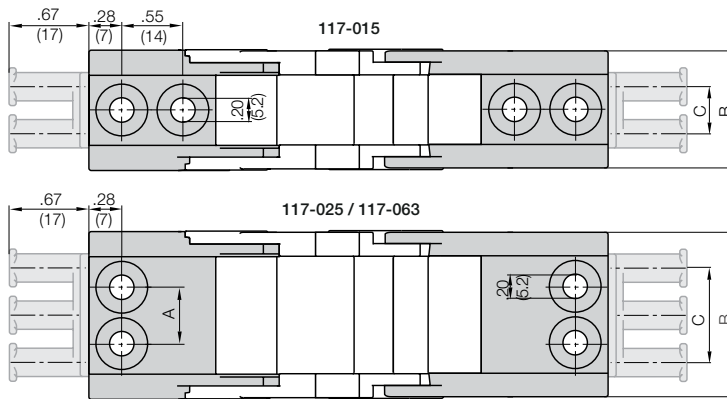
**Option: locking**

- One piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without integrated strain relief tiwrap plates

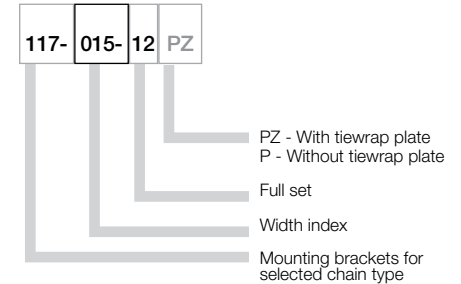


117...1P(Z)  
Moving end

117...2P(Z)  
Fixed end



**Part Number Structure**



Part number examples are shown for pivoting brackets. For locking brackets fill in the blank with

Part No. Full Set (pivoting)  
with Tiwrap Plate  
Series R17 with 25mm inner width  
117-025-12PZ

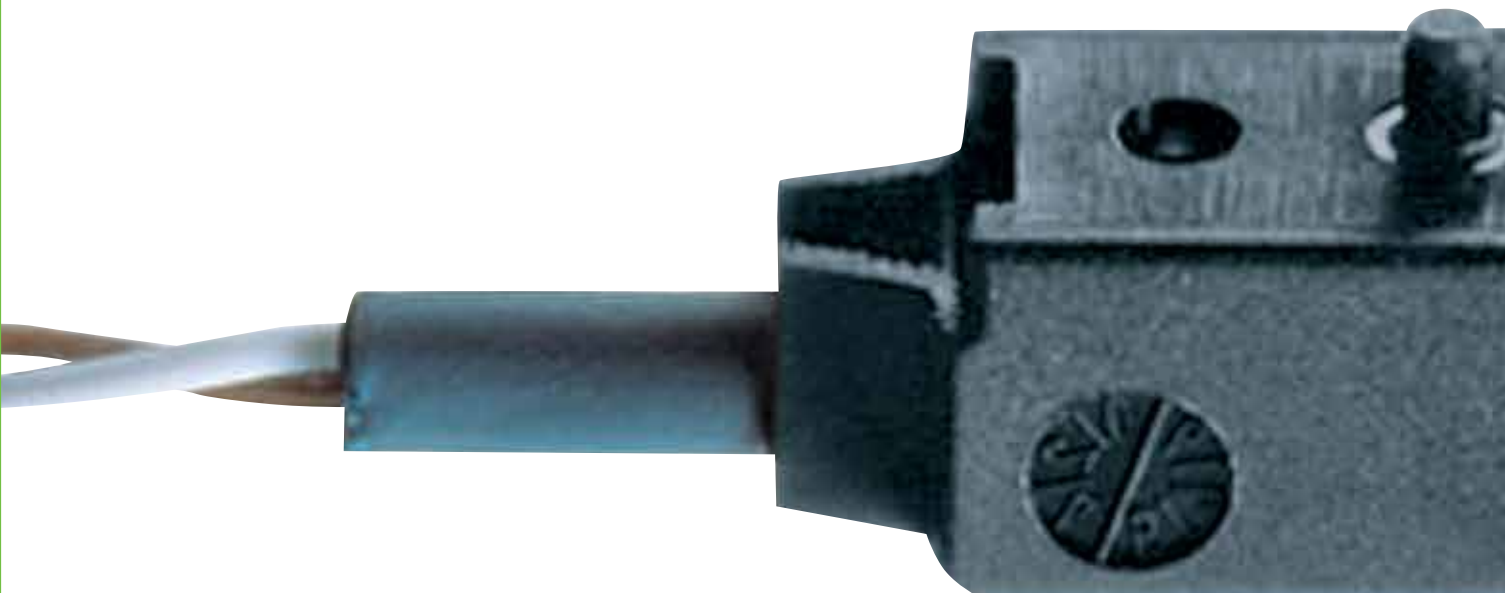
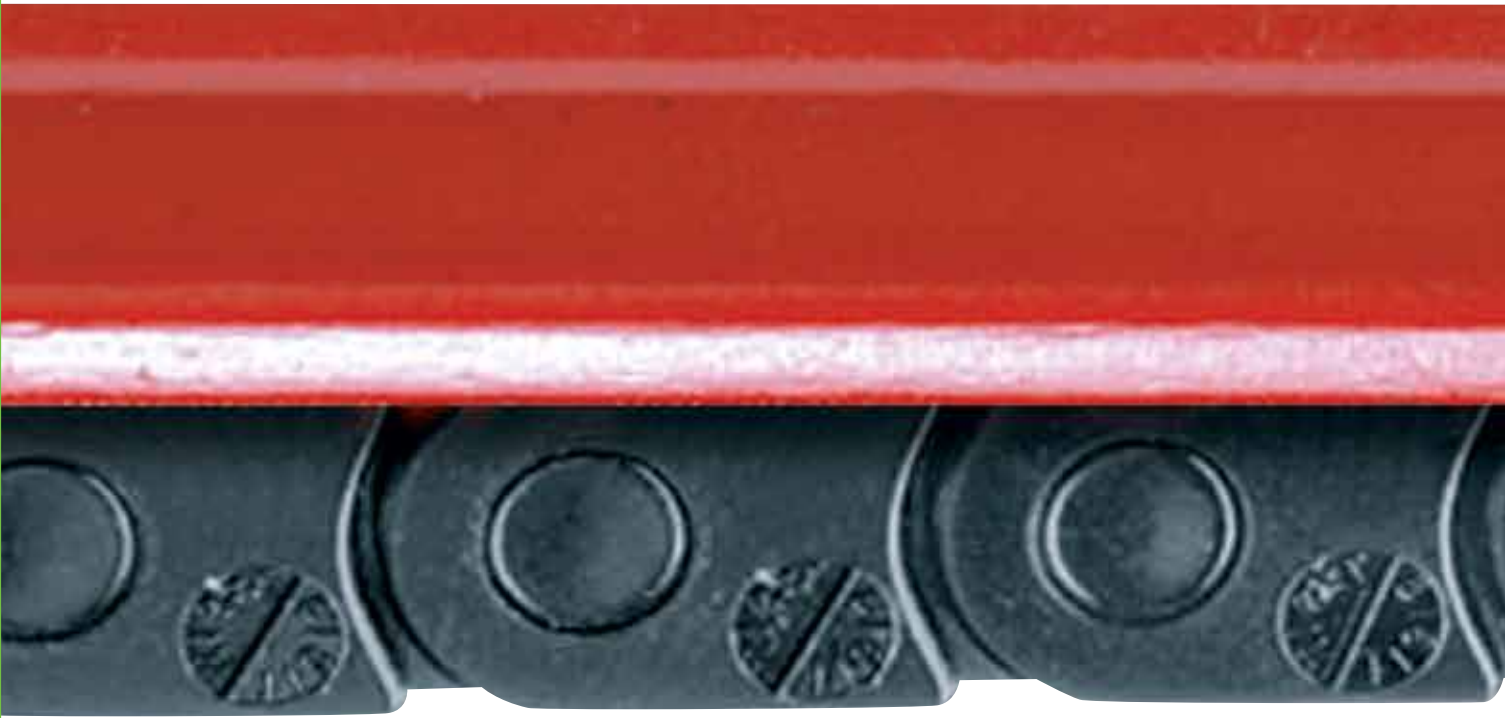
Part No. Full Set (pivoting)  
without Tiwrap Plate  
Series R17 with 25 mm inner width  
117-025-12P

Full set, for both ends:  
 Full set, each part with pin/bore + tiwrap plate  
Single-part order:  
 Mounting bracket with bore + tiwrap plate  
 Mounting bracket with pin + tiwrap plate

For Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Dimension A		Dimension B		Dimension C		Number of Teeth
			in.	(mm)	in.	(mm)	in.	(mm)	
R17-015	117-015-12PZ	117-015-12P	-	-	1.01	(25.7)	.39	(10)	2
R17-025	117-025-12PZ	117-025-12P	.47	(12)	1.41	(35.7)	.79	(20)	3
R17-063	117-063-12PZ	117-063-12P	1.89	(48)	2.91	(73.7)	1.18	(30)	6

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)





# igus<sup>®</sup> E2 Micro



# E2 Micro igus®' smallest e-chain® cable carrier

**System E2 Micro**—considered one of the world's smallest cable carriers—can fit into almost any application, including those with tight space restrictions and small bending radii. System E2 Micro is cost-effective and available in many styles and sizes with various accessory options.

## Typical industries and applications

- Models (Micro e-chains®)
- Automatic doors
- Vehicles
- Measuring machines
- Electric equipment
- Pick and place robots
- General machinery



iF-Design Award -  
for E2 Micro - Series 05



Special equipment: Electrically conductive  
ESD/ATEX version upon request



IPA Qualification Certificate:  
Cleanroom test upon request



UL94 - V2 class for Series 03 and  
UL94 - HB class for all other Micro Series



Smallest inner heights 5 mm:  
Series 03 E2 Micro







igus® E2 micro e-chains® are robust for standing applications

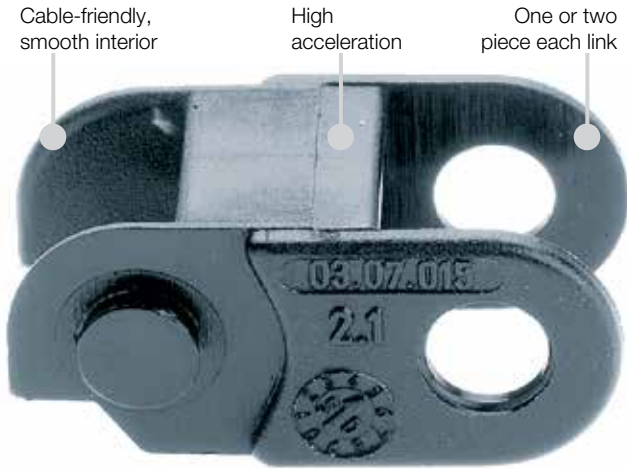


Sliding door in train - UL 94-V2 version



Sliding door in subway with igus®  
Chainflex® CF9 cable for smallest spaces

# e-chain system® E2 Micro Selection Guide



- One-piece e-chains®, from inner height of .20 (5 mm)
- High torsional rigidity
- Smallest inner heights and bending radii
- Mounting brackets with optional strain relief
- Small pitch for smooth running
- Cable-friendly, smooth interior
- Low weight
- Large pins for longer life
- Space-saving ratio of inner-to-outer dimensions
- To find more technical data about the material, chemical resistance and temperatures ► **Design, Chapter 1**

## E2 Micro - one-piece e-chains® One-piece, non snap-open



Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
03	.20	(5)	.20-.39	(5-10)	.34-.54	(8.7-13.7)	.31	(8)	.39-1.10	(10-28)
04	.28	(7)	.28-1.18	(7-30)	.47-1.38	(12-35)	.39	(10)	.59-1.89	(15-48)
05	.39	(10)	.24-2.52	(6-64)	.39-2.68	(10-68)	.47	(12)	.71-1.50	(18-38)
045	.41	(10.3)	.24-2.52	(6-64)	.47-2.76	(12-70)	.49	(12.5)	.71-1.50	(18-38)
06 <sup>1)</sup>	.41	(10.5)	.24-2.52	(6-64)	.49-2.80	(12.5-71)	.59	(15)	.71-1.50	(18-38)
E2C-10	.42	(10.6)	.24-1.97	(6-50)	.53-2.26	(13.4-57.4)	.59	(15)	.71-1.50	(18-38)
E2C-15	.59	(14.9)	.39-1.97	(10-50)	.70-2.28	(17.8-57.8)	.76	(19.3)	1.10-2.95	(28-75)
08 <sup>2)</sup>	.59	(15)	.39-1.97	(10-50)	.72-2.29	(18.2-58.2)	.76	(19.3)	.98-1.89	(25-48)

## E2 Micro - two-piece e-chains® Snap-open along the inner radius



Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
E2i-10	.41	(10.3)	.63-1.57	(16-40)	.89-1.85	(22.5-47.0)	.59	(15)	.71-1.50	(18-38)
E2i-15	.56	(14.3)	.63-1.57	(16-40)	.95-1.90	(24.2-48.2)	.76	(19.3)	1.10-1.89	(28-48)

## E2 Micro - two-piece e-chains® Snap-open along the outer radius



Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
E2-10	.40	(10.1)	.24-1.97	(6-50)	.53-2.26	(13.4-57.4)	.59	(15)	.71-1.50	(18-38)
B07 <sup>3)</sup>	.41	(10.3)	.63-1.57	(16-40)	.89-1.85	(22.5-47.0)	.59	(15)	.71-1.50	(18-38)
B09 <sup>4)</sup>	.56	(14.3)	.63-1.57	(16-40)	.95-1.90	(24.2-48.2)	.76	(19.3)	1.10-1.89	(28-48)
E2-15	.57	(14.4)	.39-1.97	(10-50)	.70-2.28	(17.8-57.8)	.76	(19.3)	1.10-2.95	(28-75)

For new designs we recommend E2 micro new generation series 1) E2C-10, 2) E2C-15, 3) E2-10, 4) E2-15



Available from stock. Orders ship as early as today.\*

\*On average 90% of orders ship the same day..

# e-chain system® E2 Micro Assembly Instructions

## Assembling | E2 micro



Twist and click

## Separating | E2 micro



Twist and separate

## Specialty | E2 micro



igus® Micro e-chains® - for smallest bending radii with Chainflex® CF98 and CF99 - 4 x d!

## Specialty | B07 and B09



B07 and B09: two-piece - Snap-open along outer radius with film-hinge

## Price Index



Series 03

## Special Features / Options



IPA Qualification Certificate:  
Cleanroom test upon request



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



Smallest inner height  
.20" (5 mm)



Flammability Class  
VDE 0304 IIC UL94 V2

## Assembly Tips



Easy to assemble and disassemble

## Usage Guidelines



- If quieter operation is required
- If cost is a factor
- If snap-open links are not necessary



- If snap-open links are required
  - Series 047 "Zipper"
- If quick insertion of cables with preassembled connector is required
  - Series E03 E-Z Chain

## Features & Benefits

- 1 Mounting bracket with integrated strain relief
- 2 One-piece, non snap-open e-chain®
- 3 Very lightweight - low price
- 4 igus® smallest e-chain® - interior dimensions .20" x .20" (5 x 5 mm)
- 5 Dirt-repellant exterior
- 6 Available as E-Z style e-chain, See Chapter 2
- 7 Patented push-button design for better stability



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 03-05-028-0

e-chain®

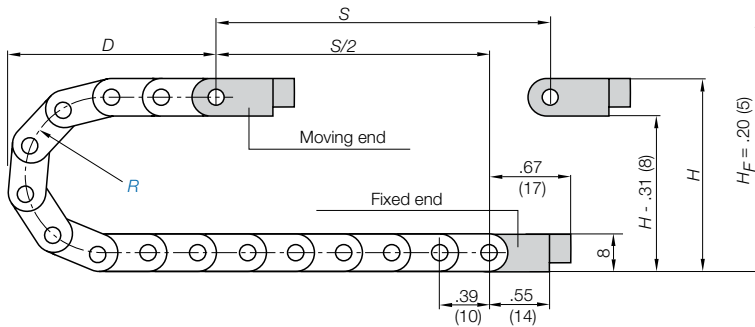
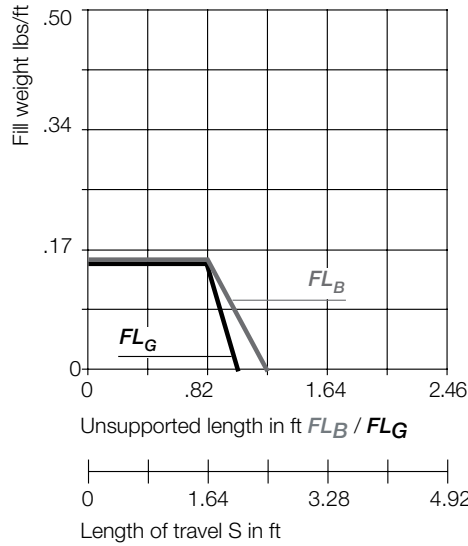
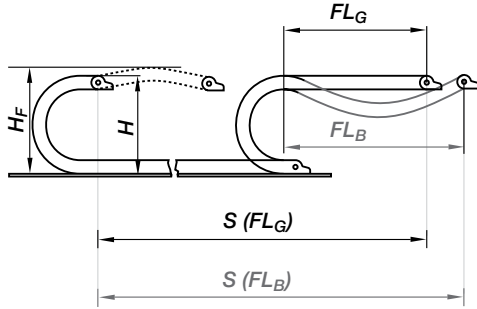
1 Set 03-05-12Z

Mounting Bracket

# e-chain system® E2 Micro Series 03 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = .39" (10 mm)  
 Links per ft (m) = 30.47 (100)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .20$  in. (5 mm) (with .067 lbs/ft (0.1 kg/m) fill weight).  
 Please consult igus® if space is particularly restricted.

R	.39 (010)	.47 (012)	.59 (015)	.71 (018)	1.10 (028)
H	1.10 (28)	1.26 (32)	1.50 (38)	1.73 (44)	2.52 (64)
D	1.14 (29)	1.22 (31)	1.34 (34)	1.46 (37)	1.85 (47)
K	2.17 (55)	2.36 (60)	2.76 (70)	3.15 (80)	4.33 (110)

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

\*If the mounting bracket location is set lower



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Flammability Class, igumid NB	VDE 0304 IIC UL94 V2

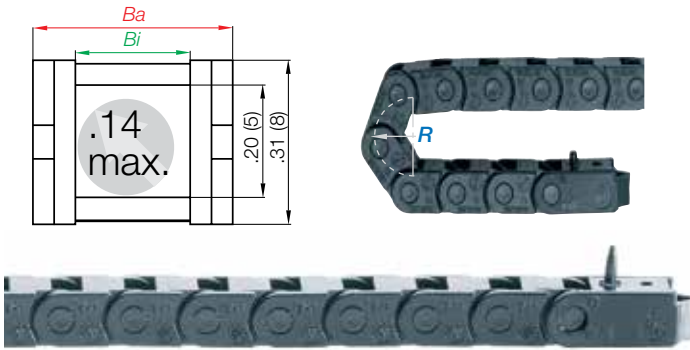
## Technical Data



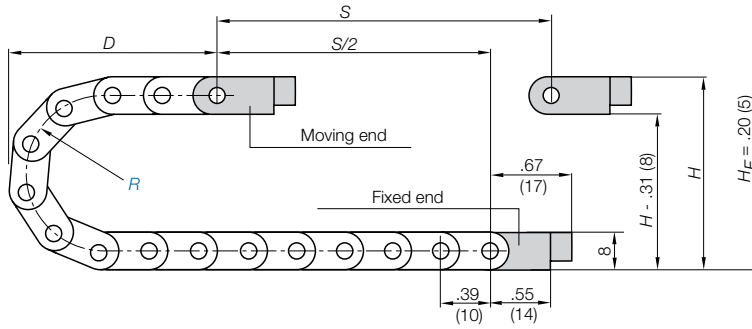
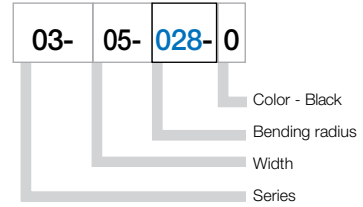
Details of material properties

► Chapter 1

Series 03 - e-chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 03-05-**028**-0  
Pitch: .39 in. (10 mm) per link links/ft (m) = 30.47 (100)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
03-05- <input type="text"/> -0	.20 (5)	.34 (8.7)	≈ 0.027 (0.04)
03-07- <input type="text"/> -0	.28 (7)	.42 (10.7)	≈ 0.034 (0.05)
03-10- <input type="text"/> -0	.39 (10)	.54 (13.7)	≈ 0.040 (0.06)

Choose from the radii below for all of the above sizes  
*Radius* (mm) Example: 03-05-**028**-0

	<b>010</b>	<b>012</b>	<b>015</b>	<b>018</b>	<b>028</b>
<i>R</i>	.39 (010)	.47 (012)	.59 (015)	.71 (018)	1.10 (028)
<i>H</i>	1.10 (28)	1.26 (32)	1.50 (38)	1.73 (44)	2.52 (64)
<i>D</i>	1.14 (29)	1.22 (31)	1.34 (34)	1.46 (37)	1.85 (47)
<i>K</i>	2.17 (55)	2.36 (60)	2.76 (70)	3.15 (80)	4.33 (110)

0=Standard color black. For other colors see Chapter 1

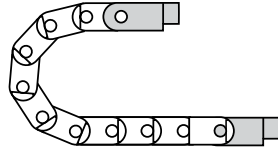
# e-chain system® E2 Micro Series 03 Mounting Brackets



## Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Rapid installation through adaptor plate

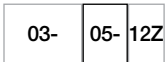
Moving end  
03 ...1Z



Fixed end  
03...2Z



## Part Number Structure



Complete Set  
Width  
Mounting bracket for selected chain type

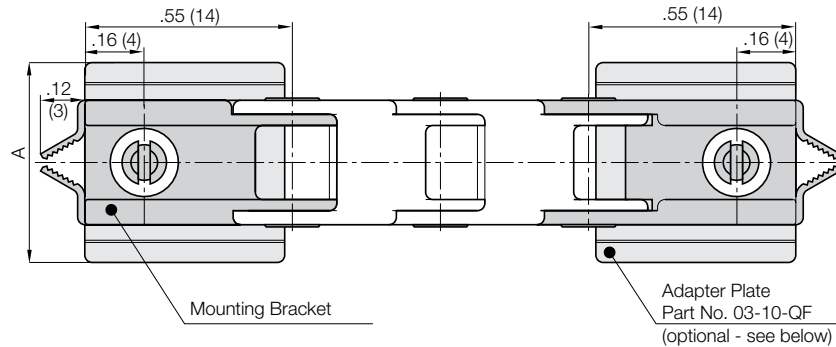
Full set, for both ends:

03- 05- 12Z Full set, each part with pin/bore

Single-part order:

03- 05- 1Z Mounting bracket with bore

03- 05- 2Z Mounting bracket with pin



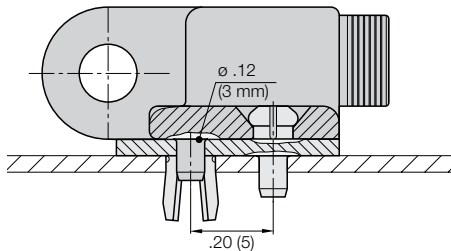
Chain Width	Part No. Full Set	Dimension A in. (mm)
-05	03-05-12Z	.34 (8.7)
-07	03-07-12Z	.42 (10.7)
-10	03-10-12Z	.54 (13.7)

## Additional Accessories



### 03-10-QF = Adapter plate for all sizes

The adapter has broken edges, so that it can be adapted to the respective chain width. It is not absolutely necessary for attaching the mounting brackets. The mounting brackets can also be screwed on without the adapter plate.



## Price Index



Series 04

## Special Features / Options



IPA Qualification Certificate:  
Cleanroom test upon request



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



Flammability Class  
VDE 0304 IIC UL94 HB

## Assembly Tips



Easy to assemble and disassemble

## Usage Guidelines



- If quieter operation is required
- If cost is a factor
- If snap-open links are not necessary



- If snap-open links are required
  - Series 047 "Zipper"
- If quick insertion of cables with preassembled connector is required
  - Series E04 E-Z Chain

## Features & Benefits

- 1 Very lightweight - low price
- 2 One-piece, non snap-open e-chain®
- 3 Small e-chain® -  
interior dimensions .28" x .28" (7 x 7 mm)
- 4 Dirt-repellant exterior



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 04-07-038-0

e-chain®

1 Set 040-07-12

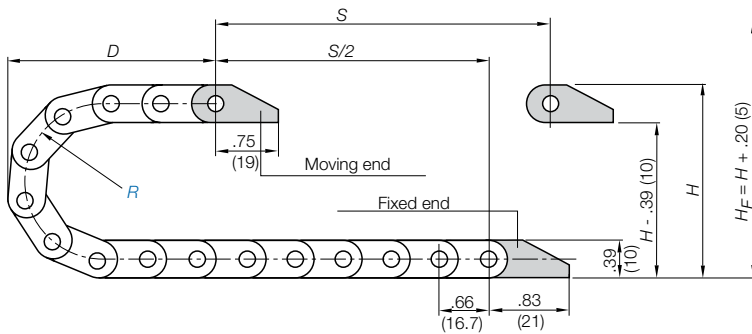
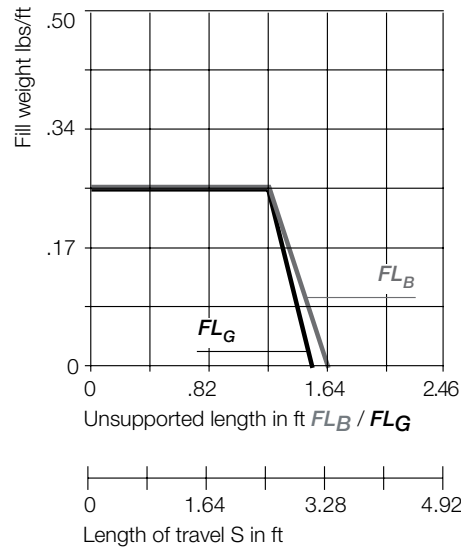
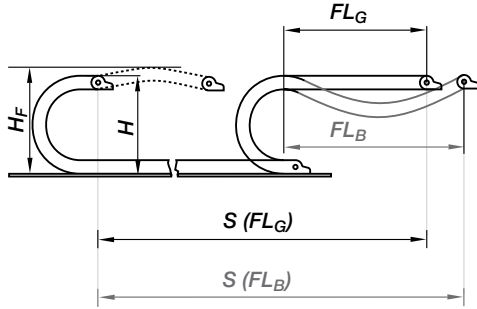
Mounting Bracket



# e-chain system® E2 Micro Series 04 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = .66" (16.7 mm)  
 Links per ft (m) = 18.28 (60)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .20 \text{ in. (5 mm)}$  (with .067 lbs/ft (0.1 kg/m) fill weight).  
 Please consult igus® if space is particularly restricted.

R	.59 (015)	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048)
H	1.57 (40)	1.81 (46)	2.60 (66)	3.39 (86)	4.17 (106)
D	1.77 (45)	1.89 (48)	2.28 (58)	2.68 (68)	3.07 (78)
K	3.35 (85)	3.54 (90)	4.92 (125)	6.10 (155)	7.28 (185)

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

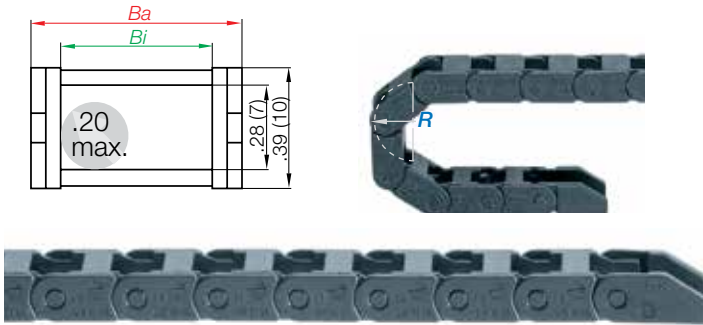
## Technical Data



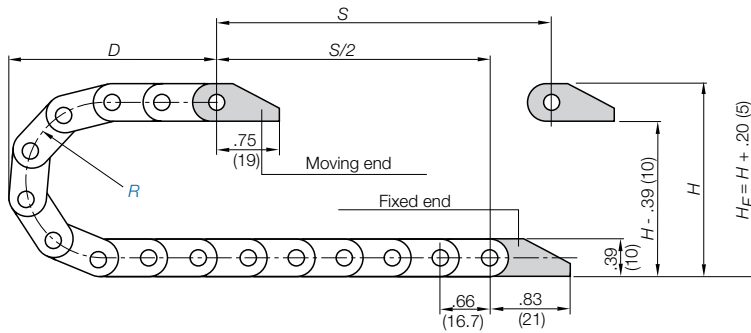
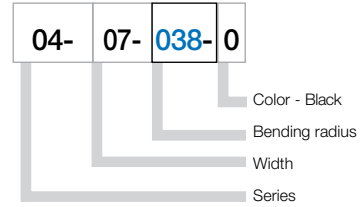
Details of material properties

► Chapter 1

Series 04 - e-chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 04-07-**038**-0  
Pitch: .66 in. (16.7 mm) per link links/ft (m) = 18.28 (60)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
04-07- <input type="text"/> -0	.28 (7)	.47 (12)	≈ 0.047 (0.07)
04-10- <input type="text"/> -0	.39 (10)	.59 (15)	≈ 0.053 (0.08)
04-16- <input type="text"/> -0	.63 (16)	.83 (21)	≈ 0.060 (0.09)
04-20- <input type="text"/> -0	.79 (20)	.98 (25)	≈ 0.067 (0.10)
04-30- <input type="text"/> -0	1.18 (30)	1.38 (35)	≈ 0.073 (0.11)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 04-07-**038**-0

	<b>015</b>	<b>018</b>	<b>028</b>	<b>038</b>	<b>048</b>
R	.59 (015)	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048)
H	1.57 (40)	1.81 (46)	2.60 (66)	3.39 (86)	4.17 (106)
D	1.77 (45)	1.89 (48)	2.28 (58)	2.68 (68)	3.07 (78)
K	3.35 (85)	3.54 (90)	4.92 (125)	6.10 (155)	7.28 (185)

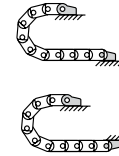
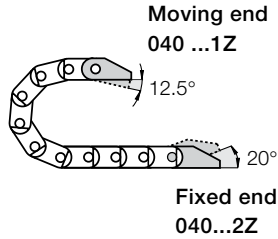
0=Standard color black. For other colors see Chapter 1

# e-chain system® E2 Micro Series 04 Mounting Brackets



## Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible

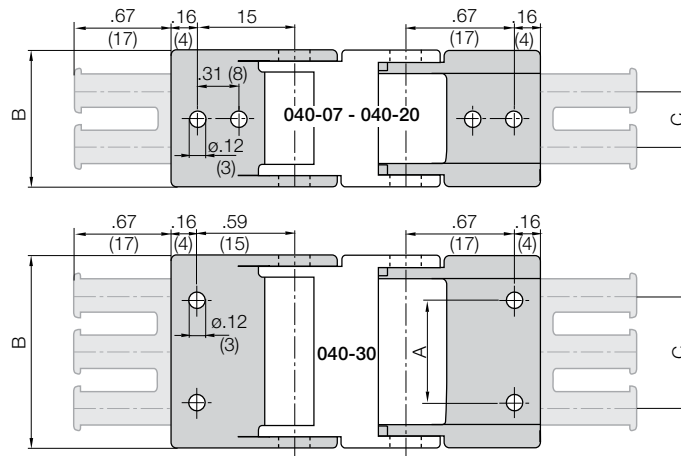


Possible installation configurations -

### Part Number Structure



- With tiwrap plate
- Complete Set
- Width
- Mounting brackets for selected chain type



### Full set, for both ends:

**040-07-12-PZ** Full set, each part with pin/bore

### Single-part order:

**040-07-1-PZ** Mounting bracket with bore

**040-07-2-PZ** Mounting bracket with pin

Chain Type	Part No.	Part No.	Dimension A		Dimensions B		Dimension C		Number of Teeth
	Full set without Tiwrap Plate	Full set with Tiwrap plate	in.	(mm)	in.	(mm)	in.	(mm)	
04-07	<b>040-07-12</b>	<b>040-07-12PZ</b>	—	—	.47	(12)	—	—	1
04-10	<b>040-10-12</b>	<b>040-07-12PZ</b>	—	—	.59	(15)	—	—	1
04-16	<b>040-16-12</b>	<b>040-07-12PZ</b>	—	—	.83	(21)	.39	(10)	2
04-20	<b>040-20-12</b>	<b>040-07-12PZ</b>	—	—	.98	(25)	.39	(10)	2
04-30	<b>040-30-12</b>	<b>040-07-12PZ</b>	.87	(22)	1.38	(35)	.79	(20)	3

## Additional accessories



**Quicksnap** - the complete, detachable mounting unit, upon request  
Only available for the 040-07 e-chain - **Part No. 040-07-QS**



**Price Index**


Series 05

**Special Features / Options**

 IPA Qualification Certificate:  
Cleanroom test upon request

 ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request

 Flammability Class  
VDE 0304 IIC UL94 V2

 iF-Design Award - for E2 micro  
- Series 05

**Assembly Tips**


Easy to assemble and disassemble

**Usage Guidelines**


- If lightweight construction is required
- If minimal height and width dimensions are required
- If cost is a factor



- If snap-open links are necessary
  - Series 07 "Zipper"
- If quick insertion of cables with preassembled connectors is required
  - Series E06 E-Z Chain
- If extra rigidity is required
  - Series 06 E2 Micro

**Features & Benefits**

- 1 Very lightweight - ideal for low inertia applications
- 2 iF-Design Award
- 3 One-piece, non snap-open e-chain®


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 05-20-038-0

e-chain®

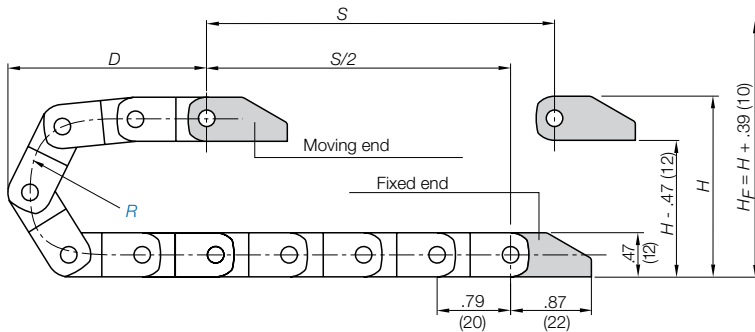
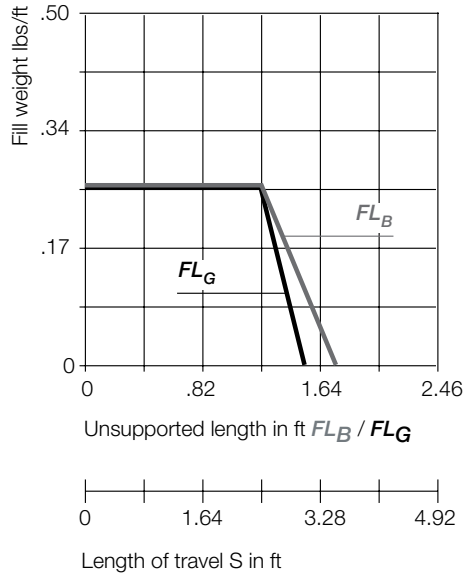
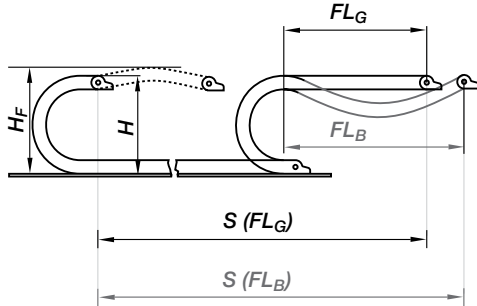
1 Set 050-20-12

Mounting Bracket

# e-chain system® E2 Micro Series 05 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = .79" (20 mm)  
 Links per ft (m) = 15.24 (50)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H	1.89 (48)	2.68 (68)	3.46 (88)
D	2.13 (54)	2.52 (64)	2.91 (74)
K	3.94 (100)	5.12 (130)	6.30 (160)

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

\*If the mounting bracket location is set lower



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data

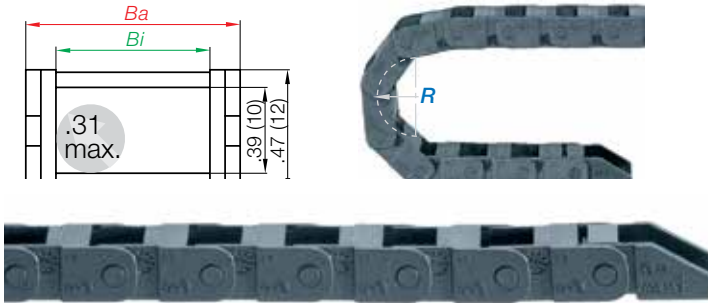


Details of material properties

► Chapter 1

Series 05 - e-chain® non snap-open

igus®  
e-chain system®

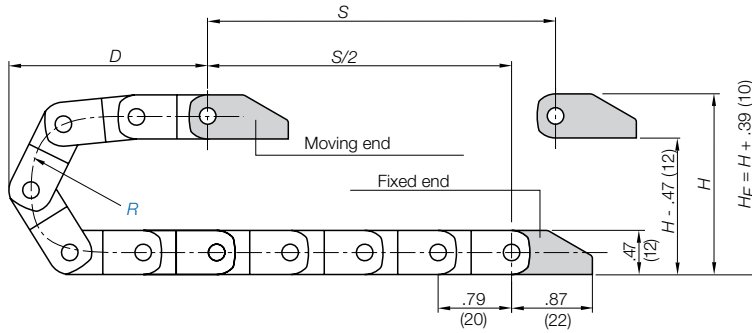


Part Number Structure



- Color - Black
- Bending radius
- Width
- Series

Telephone 1-800-521-2747



Supplement part number with required radius. Example: 05-20-**038**-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
05-06- (05-1) <input type="checkbox"/> -0	.28 (6)	.39 (10)	≈ 0.040 (0.06)
05-10- (05-2) <input type="checkbox"/> -0	.39 (10)	.55 (14)	≈ 0.047 (0.07)
05-16- (05-3) <input type="checkbox"/> -0	.63 (16)	.79 (20)	≈ 0.047 (0.07)
05-20- (05-4) <input type="checkbox"/> -0	.79 (20)	.94 (24)	≈ 0.054 (0.08)
05-30- (05-5) <input type="checkbox"/> -0	1.18 (30)	1.34 (34)	≈ 0.060 (0.09)
05-64- <input type="checkbox"/> -0	2.52 (64)	2.68 (68)	≈ 0.128 (0.19)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 05-20-**038**-0

	<b>018</b>	<b>028</b>	<b>038</b>
R	.71 (018)	1.10 (028)	1.50 (038)
H	1.89 (48)	2.68 (68)	3.46 (88)
D	2.13 (54)	2.52 (64)	2.91 (74)
K	3.94 (100)	5.12 (130)	6.30 (160)

0=Standard color black. For other colors see Chapter 1

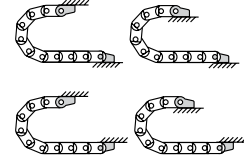
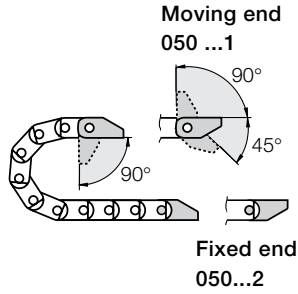
Internet: [igus.com](http://igus.com)  
email: [sales@igus.com](mailto:sales@igus.com)  
QuickSpec: [igus.com/quickspec](http://igus.com/quickspec)

# e-chain system® E2 Micro Series 05 Mounting Brackets



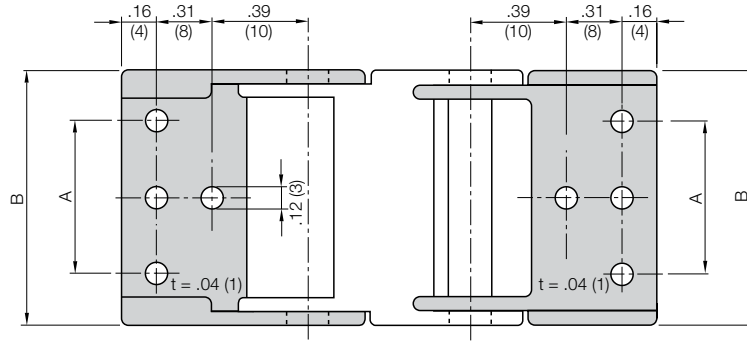
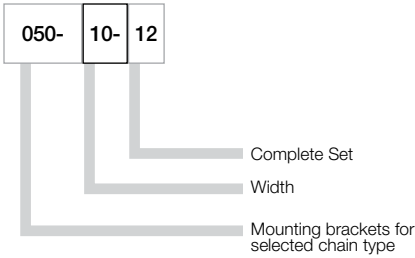
## Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible



Possible installation configurations -

## Part Number Structure



## Full set, for both ends:

050- [10-] [12] Full set, each part with pin/bore

## Single-part order:

050- [10-] [1] Mounting bracket with bore

050- [10-] [2] Mounting bracket with pin

Chain Type	Part No.	Dimension A		Dimensions B	
		in.	(mm)	in.	(mm)
05-06 (05-1)	<b>050-06-12</b>	—	—	.42	(10.7)
05-10 (05-2)	<b>050-10-12</b>	—	—	.58	(14.7)
05-16 (05-3)	<b>050-16-12</b>	—	—	.81	(20.7)
05-20 (05-4)	<b>050-20-12</b>	—	—	.97	(24.7)
05-30 (05-5)	<b>050-30-12</b>	.87	(22)	1.57	(34.7)
05-64	<b>050-64-12</b>	2.20	(56)	2.70	(68.7)



**Price Index**


Series 045

**Special Features / Options**

 IPA Qualification Certificate:  
Cleanroom test upon request

 ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request

 Flammability Class  
VDE 0304 IIC UL94 HB

**Assembly Tips**


Easy to assemble and disassemble

**Usage Guidelines**


- If very quiet operation is required
- Aesthetic design
- If excellent service life is required
- If cost is a factor
- If small bending radii are required



- If snap-open links are required
  - Series 047 "Zipper"
- If quick insertion of cables with preassembled connector is required
  - Series E06 E-Z Chain
- If extra rigidity is required
  - Series 06 E2 Micro

**Features & Benefits**

- 1 Small pitch for very quiet operation
- 2 Very lightweight - ideal for low inertia applications
- 3 Dirt-repellant exterior
- 4 One-piece, non snap-open e-chain®


 Series 046 with full-width shelving  
available for the following:

046-16-018

046-16-028

046-16-038

Width Bi: .63" (16 mm)

Radii R: (018), (028), (038)


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 045-20-038-0

e-chain®

1 Set 0450-20-12

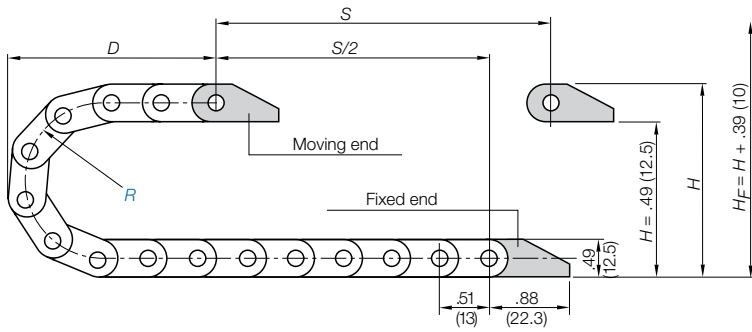
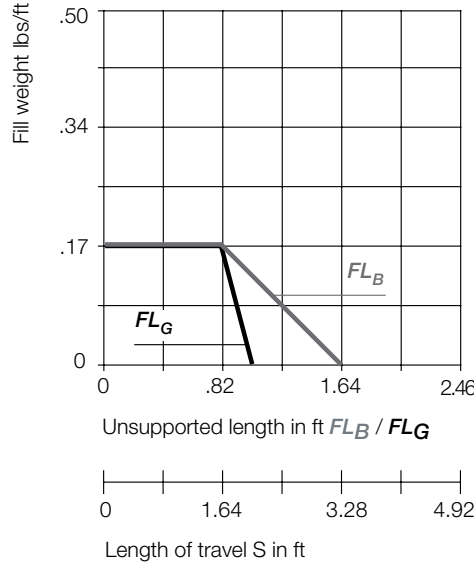
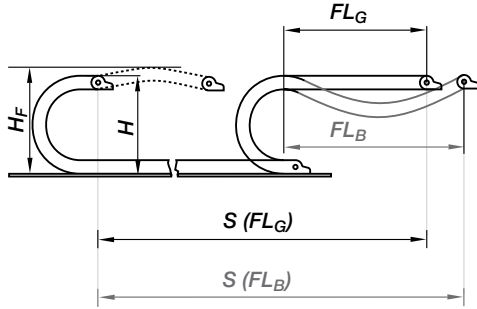
Mounting Bracket



# e-chain system® E2 Micro Series 045 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = .51" (13 mm)  
 Links per ft (m) = 23.47 (77)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_f = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height

\*If the mounting bracket location is set lower



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

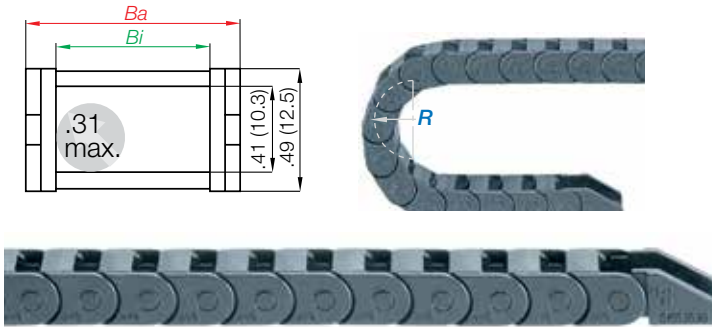
## Technical Data



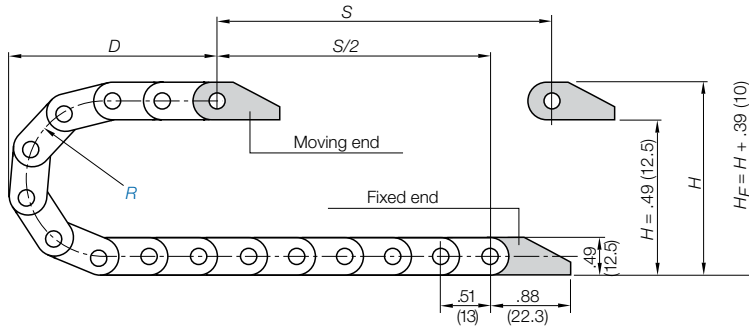
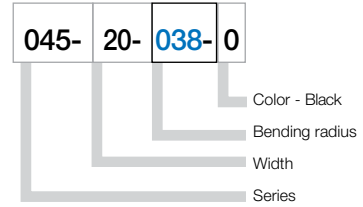
Details of material properties

► Chapter 1

Series 045 - e-chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 045-20-**038**-0  
Pitch: .51 in. (13 mm) per link links/ft (m) = 23.47 (77)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
045-06- <input type="text"/> -0	.24 (6)	.47 (12)	≈ 0.060 (0.09)
045-10- <input type="text"/> -0	.39 (10)	.63 (16)	≈ 0.067 (0.10)
045-16- <input type="text"/> -0	.63 (16)	.87 (22)	≈ 0.074 (0.11)
045-20- <input type="text"/> -0	.79 (20)	1.02 (26)	≈ 0.087 (0.13)
045-30- <input type="text"/> -0	1.18 (30)	1.42 (36)	≈ 0.108 (0.16)
045-64- <input type="text"/> -0	2.52 (64)	2.76 (70)	≈ 0.128 (0.19)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 045-20-**038**-0

	<b>018</b>	<b>028</b>	<b>038</b>
<i>R</i>	.71 (018)	1.10 (028)	1.50 (038)
<i>H</i>	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
<i>D</i>	1.73 (44)	2.13 (54)	2.52 (64)
<i>K</i>	3.35 (85)	4.53 (115)	5.91 (150)

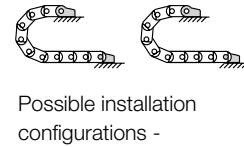
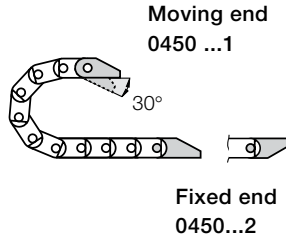
0=Standard color black. For other colors see Chapter 1

# e-chain system® E2 Micro Series 045 Mounting Brackets

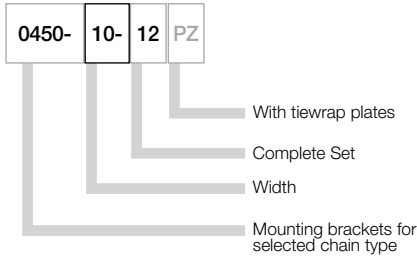


## Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible



## Part Number Structure



## Full set, for both ends:

0450-10-12-PZ

Full set, each part with pin/bore + tie-strap plate

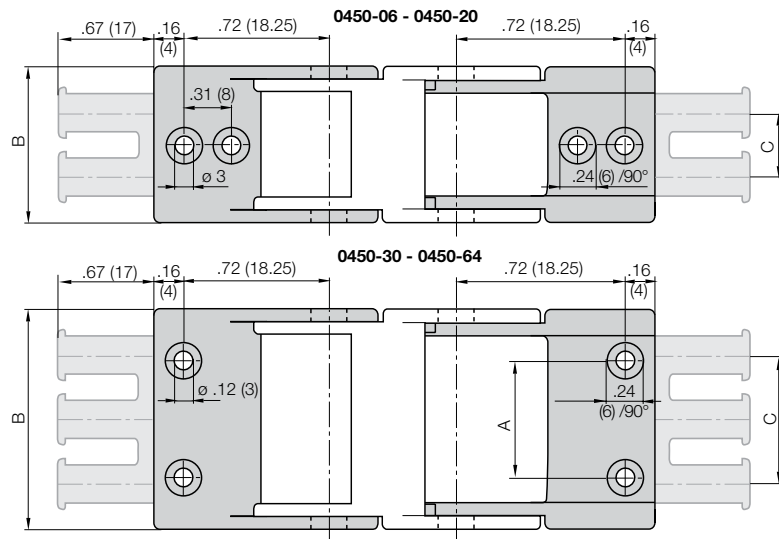
## Single-part order:

0450-10-1-PZ

Mounting bracket with bore + tie-strap plate

0450-10-2-PZ

Mounting bracket with pin + tie-strap plate



Chain Type	Part No. Full set without Tie-strap Plate	Part No. Full Set with Tie-strap Plate	Dimension A in. (mm)	Dimensions B in. (mm)	Dimensions C in. (mm)	Number of Teeth
045-06	0450-06-12	0450-06-12PZ	—	.47 (12)	—	1
045-10	0450-10-12	0450-10-12PZ	—	.63 (16)	—	1
045-16	0450-16-12	0450-16-12PZ	—	.87 (22)	.39 (10)	2
045-20	0450-20-12	0450-20-12PZ	—	1.02 (26)	.39 (10)	2
045-30	0450-30-12	0450-30-12PZ	.87 (22)	1.42 (36)	.79 (20)	3
045-64	0450-64-12	0450-64-12PZ	2.20 (56)	2.76 (70)	1.97 (50)	6

## Additional Accessories



Quickfix - mounting bracket  
with dowel, upon request

## Part No.

0450-16-12Q



For new designs we recommend E2 Micro "New Generation: E2C-10"

## Price Index



Series 06

## Special Features / Options



IPA Qualification Certificate:  
Cleanroom test upon request



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



Flammability Class  
VDE 0304 IIC UL94 HB

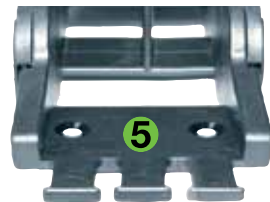
## Assembly Tips



East to assemble and disassemble

## Features & Benefits

- 1 High torsional rigidity
- 2 Very lightweight - low price
- 3 Dirt repellent exterior
- 4 Mounting bracket with integrated strain relief
- 5 Molded in separator available



## Usage Guidelines



- If high torsional rigidity is required
- If cost is a factor
- If connection options are required -  
(Quicksnap & Quickfix)



- If snap-open links are required  
➤ **Series 07 "Zipper"**
- If quick insertion of cables with  
preassembled connectors is  
required  
➤ **Series E06/Z06 E-Z Chain**
- If very quiet operation is required  
➤ **Series 045 E2 Micro**

## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 06-20-038-0

e-chain®

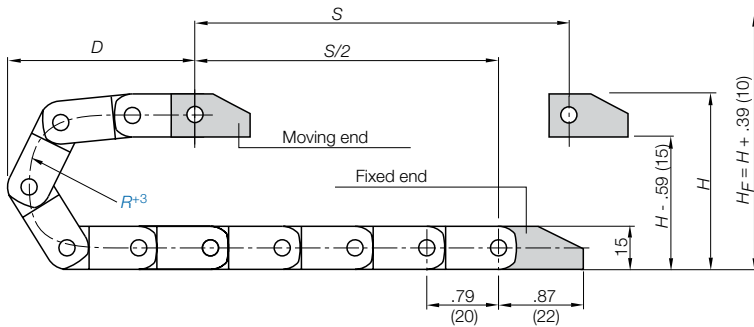
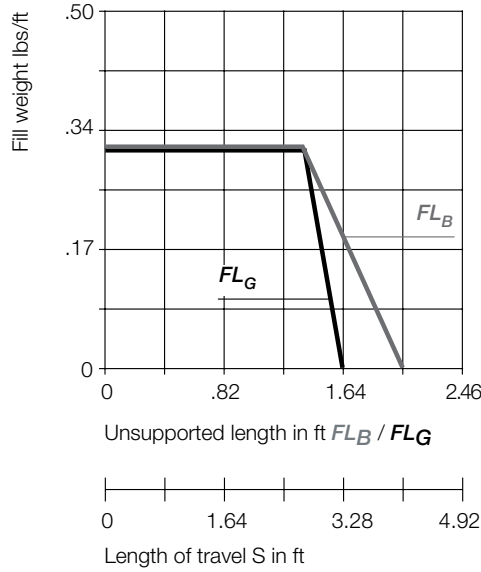
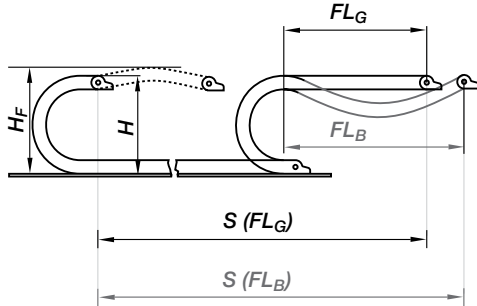
1 Set 060-20-12PZ

Mounting Bracket

# e-chain system® E2 Micro Series 06 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link =  $.79^\circ$  (20 mm)

Links per ft (m) = 15.24 (50)

For center mount applications:

Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

\*If the mounting bracket location is set lower



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

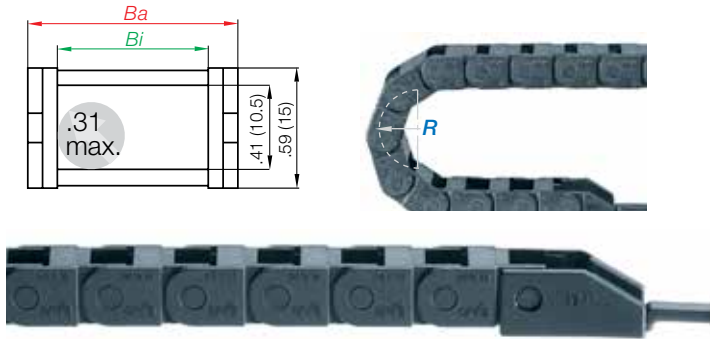
## Technical Data



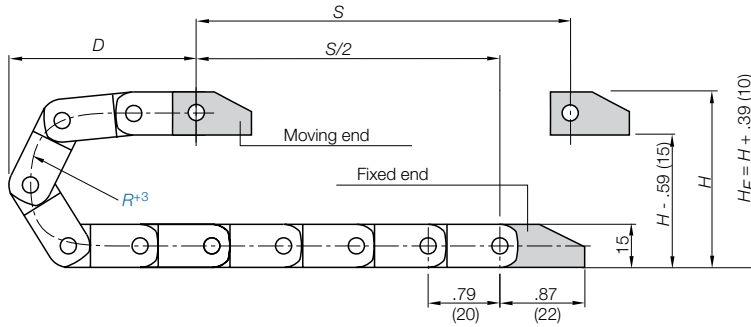
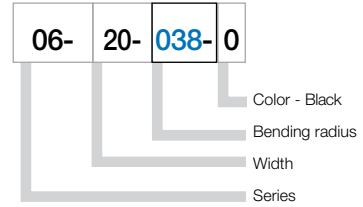
Details of material properties

► Chapter 1

Series 06 - e-chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 06-20-**038**-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
06-06- <input type="text"/> -0	.28 (6)	.49 (12.5)	≈ 0.087 (0.13)
06-10- <input type="text"/> -0	.39 (10)	.65 (16.5)	≈ 0.094 (0.14)
06-16- <input type="text"/> -0	.63 (16)	.89 (22.5)	≈ 0.107 (0.16)
06-20- <input type="text"/> -0	.79 (20)	1.06 (27.0)	≈ 0.114 (0.17)
06-30- <input type="text"/> -0	1.18 (30)	1.46 (37.0)	≈ 0.134 (0.20)
06-40- <input type="text"/> -0	1.57 (40)	1.85 (47.0)	≈ 0.155 (0.23)
06-50- <input type="text"/> -0	1.97 (50)	2.24 (57.0)	≈ 0.175 (0.26)
06-64- <input type="text"/> -0	2.52 (64)	2.80 (71.0)	≈ 0.202 (0.30)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 06-20-**038**-0

	<b>018</b>	<b>028</b>	<b>038</b>
<i>R</i>	.71 (018)	1.10 (028)	1.50 (038)
<i>H*</i>	2.01 (51)	2.80 (71)	3.58 (91)
<i>D</i>	2.20 (56)	2.60 (66)	2.99 (76)
<i>K</i>	3.94 (100)	5.12 (130)	6.30 (160)

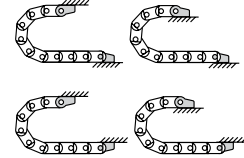
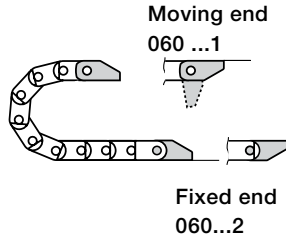
0=Standard color black. For other colors see Chapter 1

# e-chain system® E2 Micro Series 06 Mounting Brackets



## Polymer, one-piece

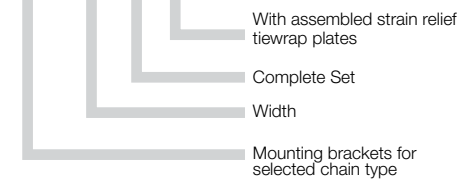
- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates



Possible installation configurations -

## Part Number Structure

060-	20-	12	PZ
------	-----	----	----



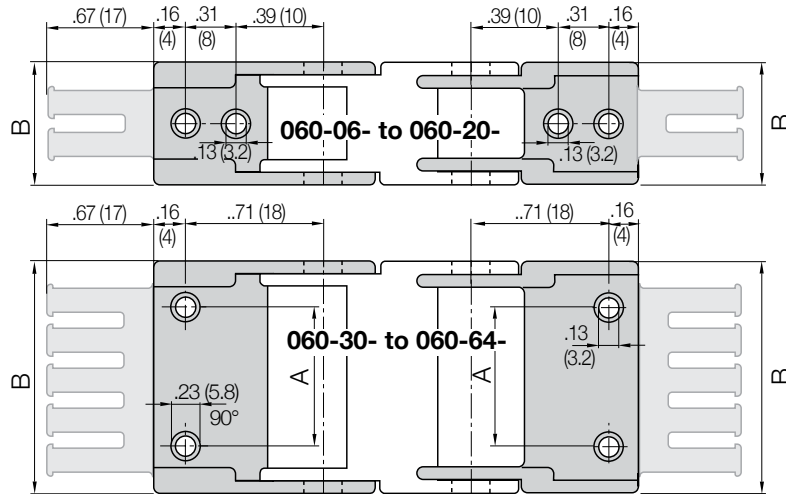
## Full set, for both ends:

060- [20-] [12] Full set, each part with pin/bore

Single-part order:

060- [20-] [1] Mounting bracket with bore

060- [20-] [2] Mounting bracket with pin



060-06-12 - 060-20-12: Center bores only

060-30-12 - 060-64-12: Outer bores only

Chain Type	Part No.	Part No.	Dimension A		Dimensions B		Number of Teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	in.	(mm)	
06-06	060-06-12PZ	060-06-12	—	—	.42	(12.5)	1
06-10	060-10-12PZ	060-10-12	—	—	.65	(16.5)	1
06-16	060-16-12PZ	060-16-12	—	—	.89	(22.5)	2
06-20	060-20-12PZ	060-20-12	—	—	1.06	(27.0)	2
06-30	060-30-12PZ	060-30-12	.87	(22)	1.46	(37.0)	3
06-40	060-40-12PZ	060-40-12	1.26	(32)	1.85	(47.0)	4
06-50	060-50-12PZ	060-50-12	1.65	(42)	2.24	(57.0)	5
06-64	060-64-12PZ	060-64-12	2.20	(56)	2.70	(71.0)	6

## Additional Accessories



**Quicksnap** - the complete, detachable mounting unit, upon request

Part No.

060-10-QS

060-16-QS

060-20-QS

060-40-QS



**Quickfix** - mounting bracket with dowel, upon request

Part No.

060-10-34QZ

060-20-34QZ



Price Index



Series E2-10

Special Features / Options



IPA Qualification Certificate:  
Cleanroom test upon request



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



Flammability Class  
VDE 0304 IIC UL94 HB

Assembly Tips



Easy to assemble and disassemble

Usage Guidelines



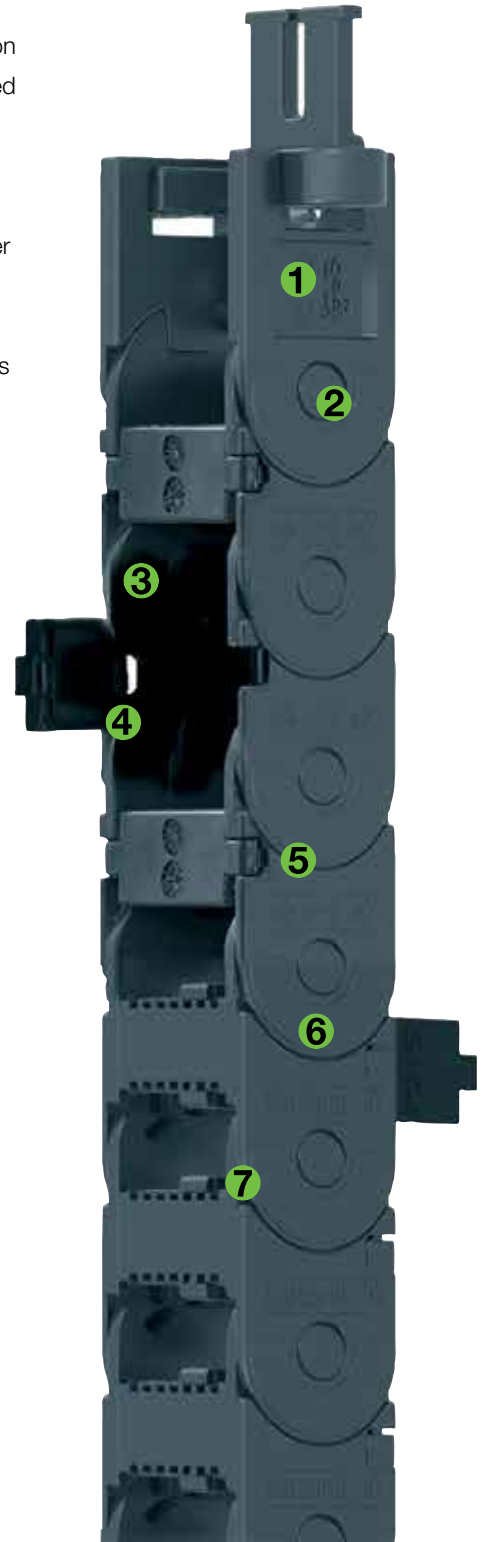
- When long unsupported lengths and high additional loads are required with a small e-chain®
- For smooth, quiet operation due to small pitch
- If a large modular system in various designs is desired



- If a closed Energy Tube is required  
➤ Series R07 “Zipper”
- If torsional rigidity is very important  
➤ Series E2C-10 E2 Micro

Features & Benefits

- 1 Universal mounting bracket with strain relief option
- 2 Large, assembly friendly pins for long unsupported lengths
- 3 Very smooth contours ensure the best possible cable life
- 4 Non snap-open or snap-open in the inner or outer radius
- 5 Lightweight, low price
- 6 Square stop-dog system for large additional loads
- 7 Brake feature reduces noise



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E2-10-20-038-0

e-chain®

1 Set E2-100-20-34PZ

Mounting Bracket



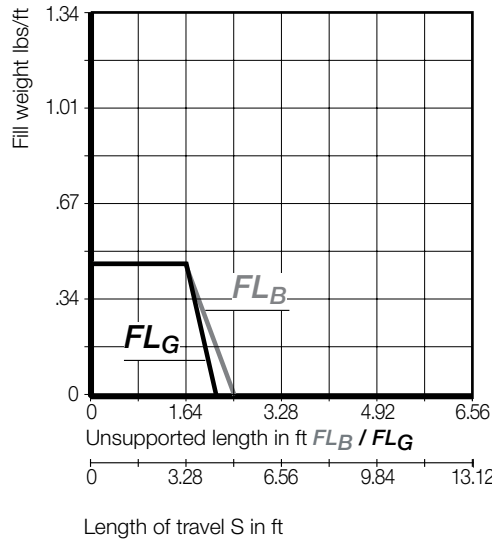
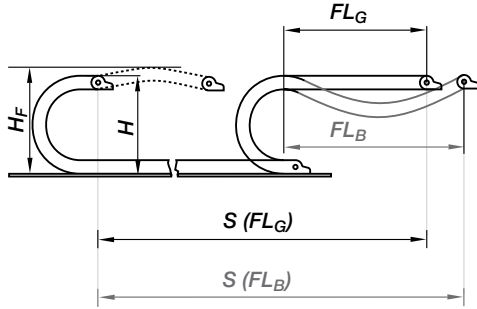
# e-chain system® E2 Micro Series E2-10/E2i-10/E2C-10 Installation Dimensions



E2-10  
E2i-10  
E2C-10

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



## Short Travels - Unsupported

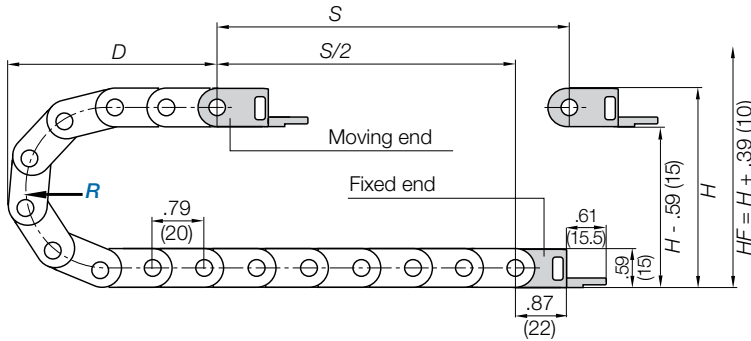


Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

\*If the mounting bracket location is set lower



Pitch per link = .79" (20 mm)

Links per ft (m) = 15.24 (50)

For center mount applications:

Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39 \text{ in. (10 mm)}$  (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



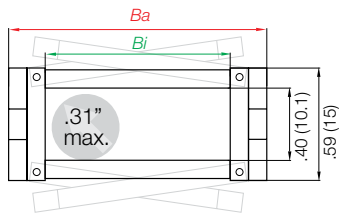
Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data



Details of material properties

► Chapter 1



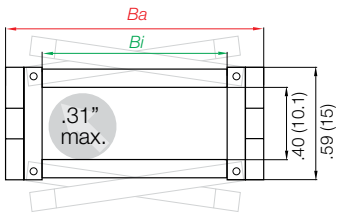
Series E2-10 - Snap-open along the outer radius from both sides



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



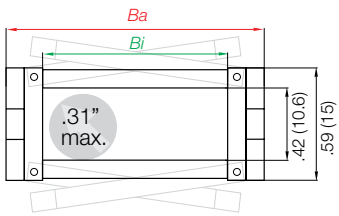
Series E2i-10 - Snap-open along the inner radius from both sides



Part Number Structure



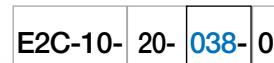
Color - Black  
Bending radius  
Width  
Series



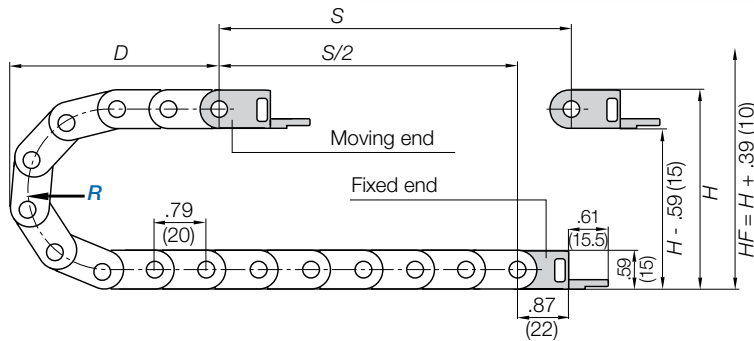
Series E2C-10 - One-piece, non snap-open



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



Supplement part number with required radius. Example: E2-10-20-038-0

Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Snap-open along outer radius	Snap-open along inner radius	One-piece non snap-open	Bi in. (mm)	Ba in. (mm)	Weight		
					E2-10 lbs/ft (kg/m)	E2i-10 lbs/ft (kg/m)	E2C-10 lbs/ft (kg/m)
E2-10-06-	E2i-10-06-	E2C-10-06-	.28 (6)	.53 (13.4)	≈ 0.087 (0.13)	≈ 0.087 (0.13)	≈ 0.094 (0.14)
E2-10-10-	E2i-10-10-	E2C-10-10-	.39 (10)	.69 (17.4)	≈ 0.094 (0.14)	≈ 0.094 (0.14)	≈ 0.094 (0.14)
E2-10-16-	E2i-10-16-	E2C-10-16-	.63 (16)	.92 (23.4)	≈ 0.107 (0.16)	≈ 0.107 (0.16)	≈ 0.107 (0.16)
E2-10-20-	E2i-10-20-	E2C-10-20-	.79 (20)	1.08 (27.4)	≈ 0.114 (0.17)	≈ 0.114 (0.17)	≈ 0.114 (0.17)
E2-10-30-	E2i-10-30-	E2C-10-30-	1.18 (30)	1.47 (37.4)	≈ 0.128 (0.19)	≈ 0.128 (0.19)	≈ 0.134 (0.20)
E2-10-40-	E2i-10-40-	E2C-10-40-	1.57 (40)	1.87 (47.4)	≈ 0.148 (0.22)	≈ 0.148 (0.22)	≈ 0.154 (0.23)
E2-10-50-	E2i-10-50-	E2C-10-50-	1.97 (50)	2.26 (57.4)	≈ 0.168 (0.25)	≈ 0.168 (0.25)	≈ 0.168 (0.25)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E2-10-20-038-0

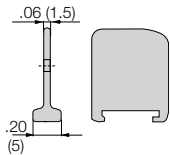
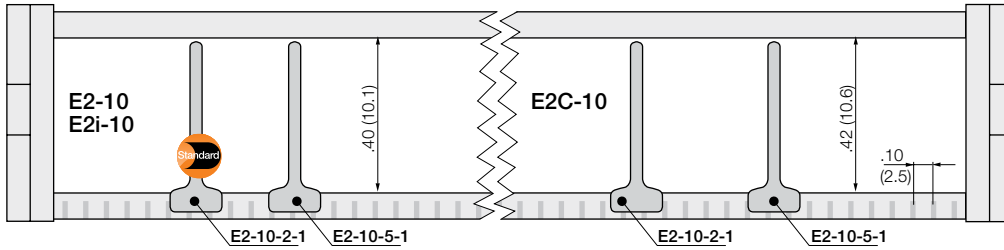
0=Standard color black.  
For other colors see Chapter 1

	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)

e-chain system® E2 Micro  
 Series E2-10/E2i-10/E2C-10  
 Interior Separation



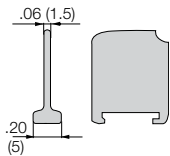
E2-10  
 E2i-10  
 E2C-10



**Separator**

Unassembled	Part No. E2-10-2
Assembled	Part No. E2-10-2-1

- Separator E2-10-2 Standard - for all applications**  
 For a simple vertical subdivision on e-chains®. Separators can be arranged anywhere in the Energy cross section.



**Notch separator  
 For notch crossbar**

Unassembled	Part No. E2-10-5
Assembled	Part No. E2-10-5-1

- Notch separator E2-10-5 Locks safely in .10" (2.5 mm) increments**  
 For exact positioning in e-chains®. Recommended for side-mounted applications.

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](http://igus.com/e-chains)



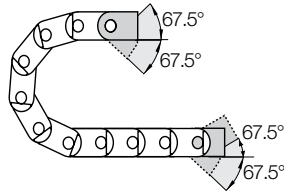


### Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiwrap plates

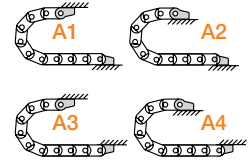
#### Moving end

- E2-100-...-3PZ two side pivoting
- E2-100-...-5PZ one side\* pivoting
- E2-100-...-1PZ locking



#### Fixed end

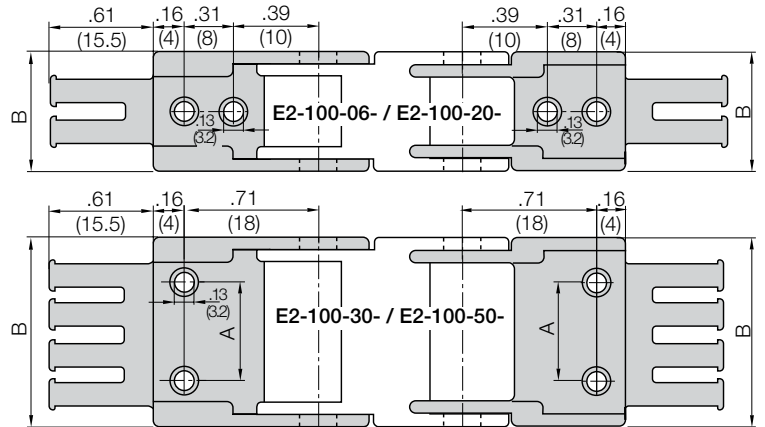
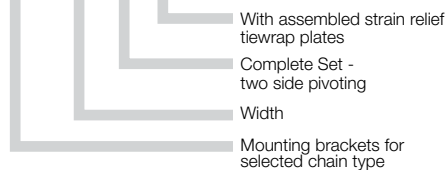
- E2-100-...-4PZ two side pivoting
- E2-100-...-6PZ one side\* pivoting
- E2-100-...-2PZ locking



Possible installation configurations -

### Part Number Structure

E2-100- 20- 34 PZ



### Full set, for both ends:

E2-100- [20-] [34] Full set, each part with pin/bore

### Single-part order:

- E2-100- [20-] [3] Mounting bracket with bore
- E2-100- [20-] [4] Mounting bracket with pin

E2-100-06-12 - E2-100-20-12: Center bores only  
E2-100-30-12 - E2-100-50-12: Outer bores only

Chain Width	Part No. full set with tiwrap plate two side pivoting	Part No. full set with tiwrap plate one side* pivoting	Part No. full set with tiwrap plate locking	Dimension A in. (mm)	Dimension B in. (mm)	Number of Teeth
-06	E2-100-06-34PZ	E2-100-06-56PZ	E2-100-06-12PZ	—	.53 (13.4)	1
-10	E2-100-10-34PZ	E2-100-10-56PZ	E2-100-10-12PZ	—	.69 (17.4)	1
-16	E2-100-16-34PZ	E2-100-16-56PZ	E2-100-16-12PZ	—	.92 (23.4)	2
-20	E2-100-20-34PZ	E2-100-20-56PZ	E2-100-20-12PZ	—	1.08 (27.4)	2
-30	E2-100-30-34PZ	E2-100-30-56PZ	E2-100-30-12PZ	.87 (22)	1.47 (37.4)	3
-40	E2-100-40-34PZ	E2-100-40-56PZ	E2-100-40-12PZ	1.26 (32)	1.87 (47.4)	4
-50	E2-100-50-34PZ	E2-100-50-56PZ	E2-100-50-12PZ	1.65 (42)	2.26 (57.4)	5

\*One-side pivoting: Pivot angle = Bending radius.

One side pivoting only to the inner radius - whether mounted to A1 or A4

## Additional Accessories



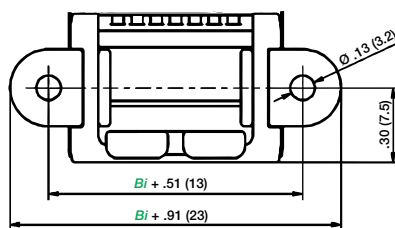
**Quick flange**- the quick flange can be clipped-in laterally in all mounting brackets. Housing for hexagonal nut or M3 socket head screws M3.

Single:

Part no. E2-150-QF

Includes mounting bracket:

Part No. E2-100-20-34PZQF



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



## Price Index



Series B07

## Special Features / Options



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



UL94 -V2 classifications upon  
request

## Assembly Tips



Easy to assemble and disassemble

## Usage Guidelines



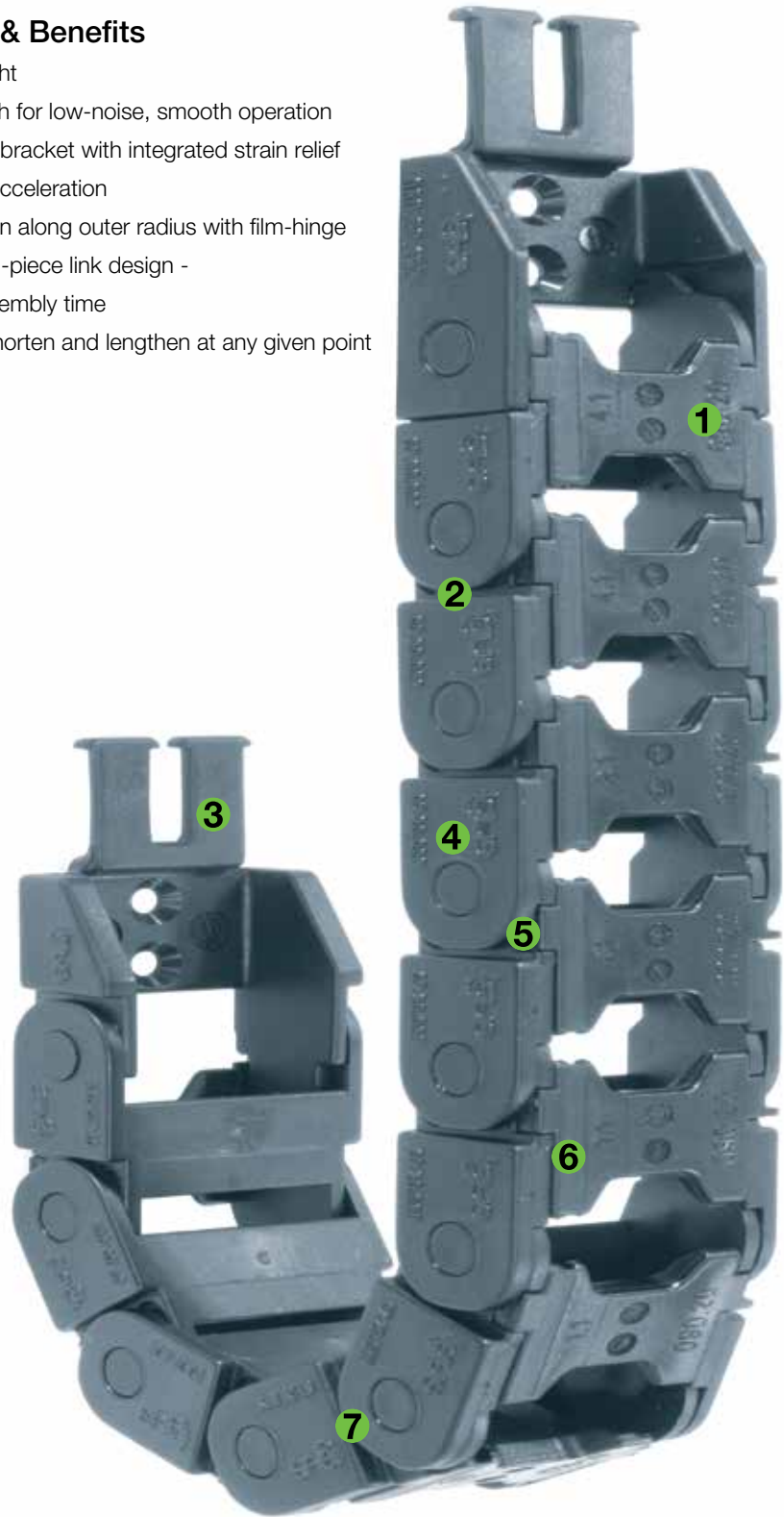
- If a small lightweight e-chain® is required
- If a small, openable, reasonably priced e-chain® is required
- Perfect for handling machines and pick-and-place tools



- If opening of the link is not necessary
  - **Series 06 E2 micro**
- If cable installation without opening lids is possible
  - **Series E06 E-Z Chain**
- If a fast openable Energy Tube system is required
  - **Series R07 E2 Tubes**

## Features & Benefits

- 1 Lightweight
- 2 Small pitch for low-noise, smooth operation
- 3 Mounting bracket with integrated strain relief
- 4 For high acceleration
- 5 Snap-open along outer radius with film-hinge
- 6 Modular 2-piece link design - saves assembly time
- 7 Easy to shorten and lengthen at any given point



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **B07-20-038-0**

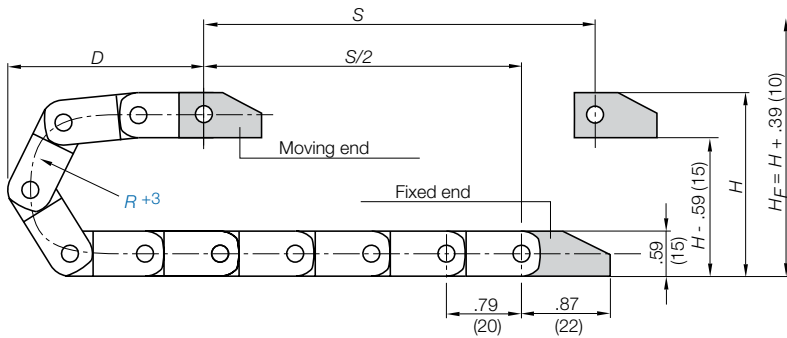
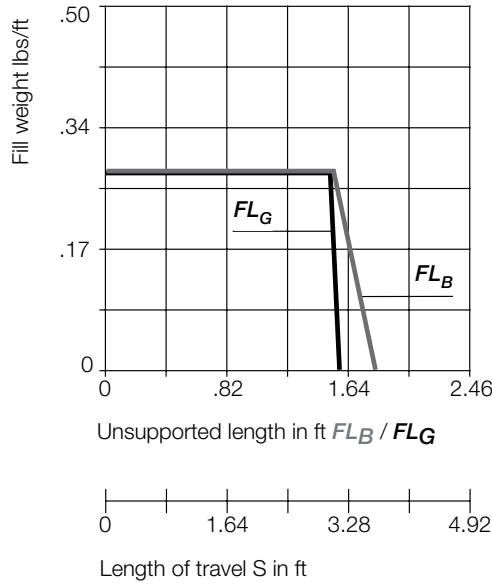
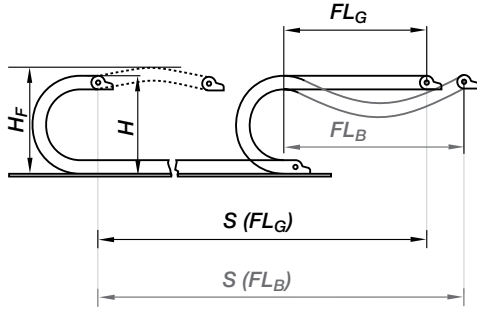
e-chain®

1 Set **060-20-12PZ**

Mounting Bracket

### Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link =  $.79''$  (20 mm)  
 Links per ft (m) = 15.24 (50)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .39$  in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)

### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

\*If the mounting bracket location is set lower



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 6.56 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.81 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

### Technical Data

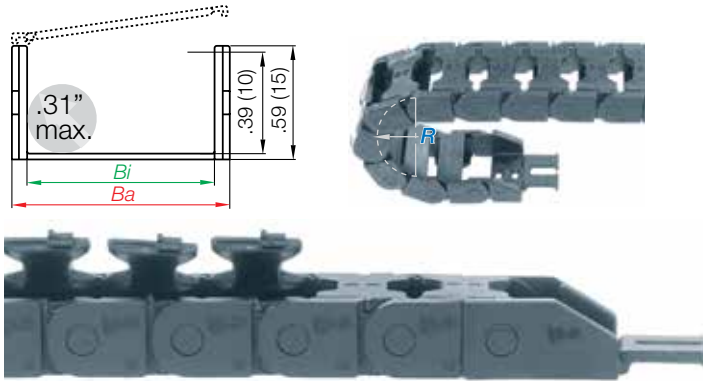


Details of material properties

► Chapter 1

Series B07 - e-chain® snap-open along the outer radius

igus®  
e-chain system®

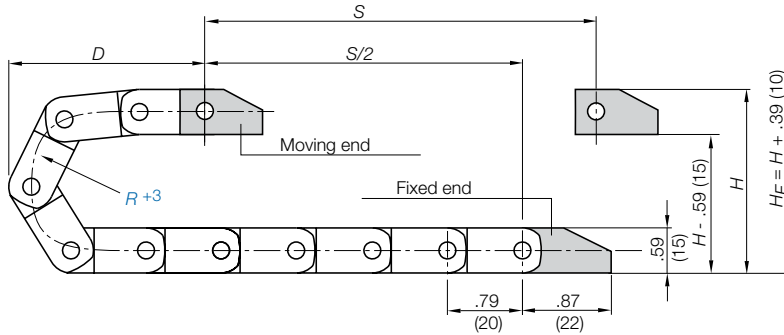


Part Number Structure



- Color - Black
- Bending radius
- Width
- Series

Telephone 1-800-521-2747



Supplement part number with required radius. Example: B07-20-038-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
B07-16- <input type="text"/> -0	.63 (16)	.89 (22.5)	≈ 0.107 (0.16)
B07-20- <input type="text"/> -0	.79 (20)	1.06 (27.0)	≈ 0.114 (0.17)
B07-30- <input type="text"/> -0	1.18 (30)	1.46 (37.0)	≈ 0.134 (0.20)
B07-40- <input type="text"/> -0	1.57 (40)	1.85 (47.0)	≈ 0.155 (0.23)

Choose from the radii below for all of the above sizes

Radius (mm) Example: B07-20-038-0

	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)

0=Standard color black. For other colors see Chapter 1

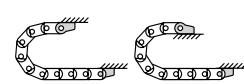
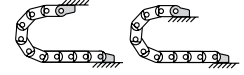
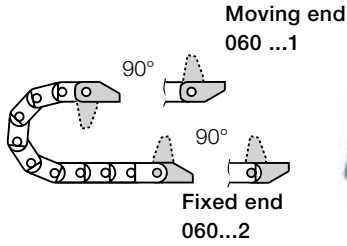
Internet: igus.com  
email: sales@igus.com  
QuickSpec: igus.com/quickspec





**Polymer, one-piece**

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates



Possible installation configurations -

**Part Number Structure**

060-	20-	12	PZ
------	-----	----	----

- With assembled strain relief tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type

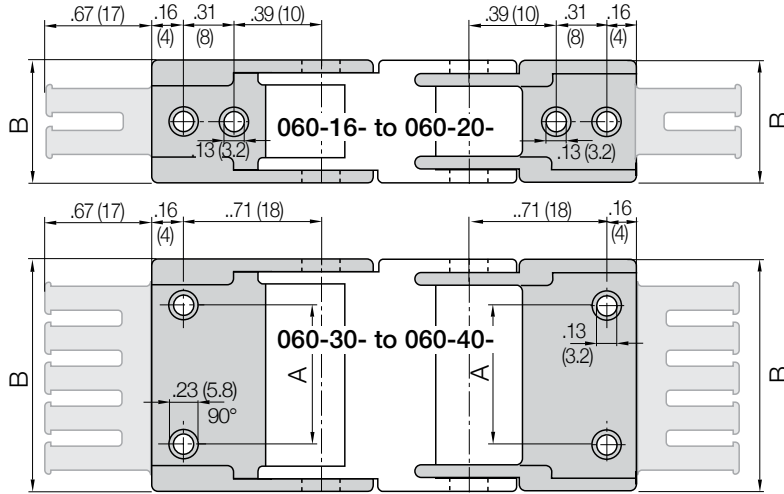
**Full set, for both ends:**

060- [20-] [12] Full set, each part with pin/bore

**Single-part order:**

060- [20-] [1] Mounting bracket with bore

060- [20-] [2] Mounting bracket with pin



060-16-12 - 060-20-12: Center bores only

060-30-12 - 060-40-12: Outer bores only

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A		Dimensions B		Number of Teeth
			in.	(mm)	in.	(mm)	
B07-16	060-16-12PZ	060-16-12	—	—	.89	(22.5)	2
B07-20	060-20-12PZ	060-20-12	—	—	1.06	(27.0)	2
B07-30	060-30-12PZ	060-30-12	.87	(22)	1.46	(37.0)	3
B07-40	060-40-12PZ	060-40-12	1.26	(32)	1.85	(47.0)	4

**Additional Accessories**



**Quicksnap** - the complete, detachable mounting unit, upon request

**Part No.**  
060-16-QS  
060-20-QS  
060-40-QS



**Quickfix** - mounting bracket with dowel, upon request

**Part No.**  
060-20-34QZ



For new designs we recommend E2 Micro "New Generation: E2-15"

## Price Index



Series B09

## Special Features / Options



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



UL94 -V2 classification version  
upon request

## Assembly Tips



Easy to assemble and disassemble

## Usage Guidelines



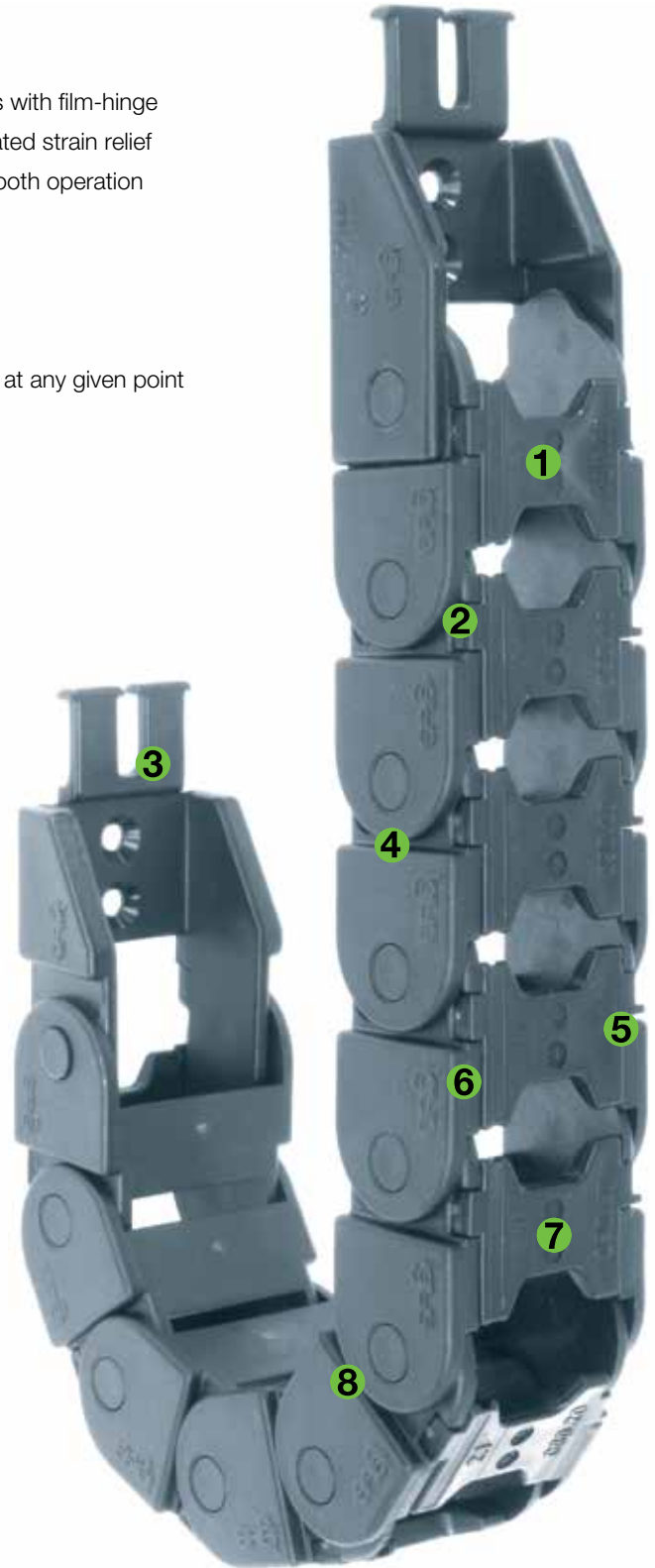
- If a small and lightweight e-chain® is required
- If a small, openable, reasonably priced e-chain® is required
- Perfect for handling machines and pick-and-place robots



- If opening of the link is not necessary
  - Series 08 E2 Micro
- If cable installation without opening lids is possible
  - Series E08 E-Z Chain
- If a fast, openable Energy Tube system is required
  - Series R09 Energy Tube

## Features & Benefits

- 1 Lightweight
- 2 Snap-open along outer radius with film-hinge
- 3 Mounting bracket with integrated strain relief
- 4 Small pitch for low-noise, smooth operation
- 5 Closed, easy to open version
- 6 Modular 2-piece link design - saves assembly time
- 7 For high acceleration
- 8 Easy to shorten and lengthen at any given point



## Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **B09-20-038-0**

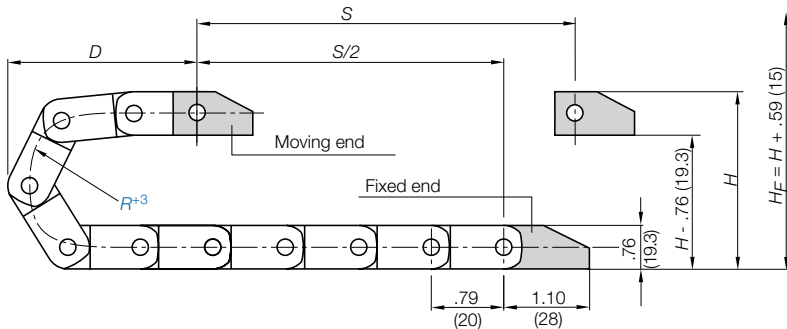
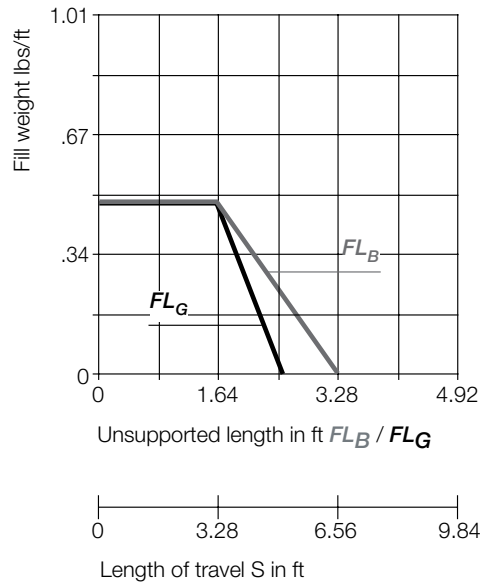
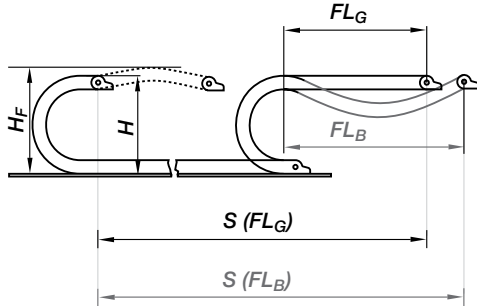
e-chain®

1 Set **080-20-12PZ**

Mounting Bracket

Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = .79" (20 mm)  
Links per ft (m) = 15.24 (50)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .59$  in. (15 mm) (with .20 lbs/ft (0.3 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)
H*	2.95 (75)	3.74 (95)	4.53 (115)
D	2.68 (68)	3.07 (78)	3.46 (88)
K	5.21 (130)	6.41 (160)	7.68 (195)

Short Travels -  
Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

\*If the mounting bracket location is set lower



Speed / acceleration $FL_G$	max. 6.56 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 32.81 ft/s (10 m/s) / max. 164 ft/s <sup>2</sup> (50 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

Technical Data

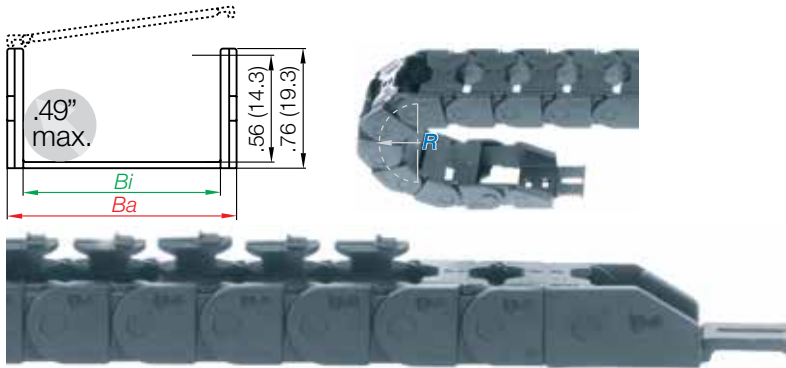


Details of material properties

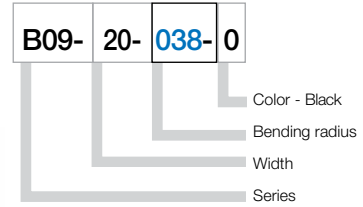
► Chapter 1

Series B09 - e-chain® snap-open along the outer radius

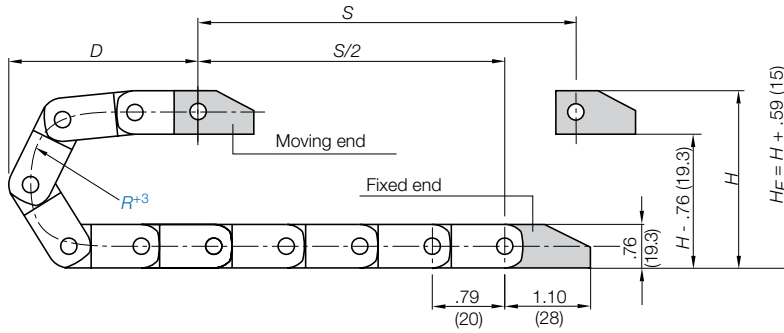
igus®  
e-chain system®



Part Number Structure



Telephone 1-800-521-2747



Supplement part number with required radius. Example: B09-20-**038**-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
B09-16- <input type="text"/> -0	.63 (16)	.95 (24.2)	≈ 0.16 (0.24)
B09-20- <input type="text"/> -0	.79 (20)	1.11 (28.2)	≈ 0.17 (0.25)
B09-30- <input type="text"/> -0	1.18 (30)	1.50 (38.2)	≈ 0.19 (0.28)
B09-40- <input type="text"/> -0	1.57 (40)	1.90 (48.2)	≈ 0.21 (0.31)

Choose from the radii below for all of the above sizes  
*Radius* (mm) Example: B09-20-**038**-0

	<b>028</b>	<b>038</b>	<b>048</b>
<i>R</i>	1.10 (028)	1.50 (038)	1.89 (048)
<i>H*</i>	2.95 (75)	3.74 (95)	4.53 (115)
<i>D</i>	2.68 (68)	3.07 (78)	3.46 (88)
<i>K</i>	5.21 (130)	6.41 (160)	7.68 (195)

0=Standard color black. For other colors see Chapter 1

Internet: [igus.com](http://igus.com)  
email: [sales@igus.com](mailto:sales@igus.com)  
QuickSpec: [igus.com/quickspec](http://igus.com/quickspec)

Additional Accessories



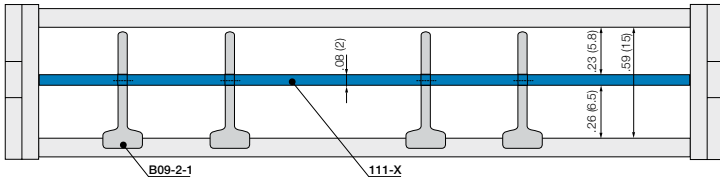
Quicksnap - the complete, detachable mounting unit, upon request

Part No.  
080-20-QS  
080-30-QS

# e-chain system® E2 Micro Series B09 Interior Separation - Mounting Brackets

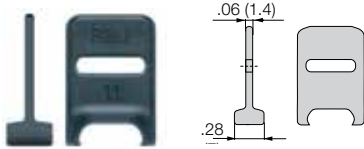


B09



### Separators, full-width shelves -

In the standard configuration separators are assembled every other Energy-Chain® link!



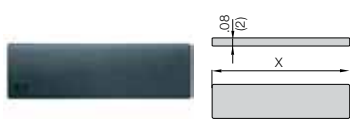
### Vertical Separator, slotted

Unassembled **Part No. B09-2**

Assembled **Part No. B09-2-1**

### Slotted separator B09-2

This component is used when vertical separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements



### Full width shelf

Unassembled **Part No. 110-X**

Assembled **Part No. 111-X**

### Full width shelf 110-X

This component is used in applications with many thin cables with similar diameters.

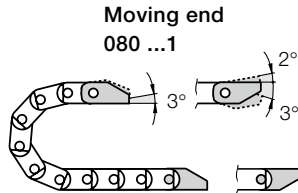
Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.39 (010)	<b>110-10</b>	<b>111-10</b>	1.18 (030)	<b>110-30</b>	<b>111-30</b>
.51 (013)	<b>110-13</b>	<b>111-13</b>	1.57 (040)	<b>110-40</b>	<b>111-40</b>
.63 (016)	<b>110-16</b>	<b>111-16</b>	1.97 (050)	<b>110-50</b>	<b>111-50</b>
.79 (020)	<b>110-20</b>	<b>111-20</b>			

## Mounting Brackets

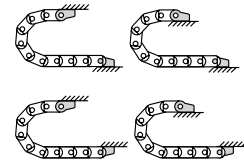


### Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiwrap plates



Fixed end  
080...2

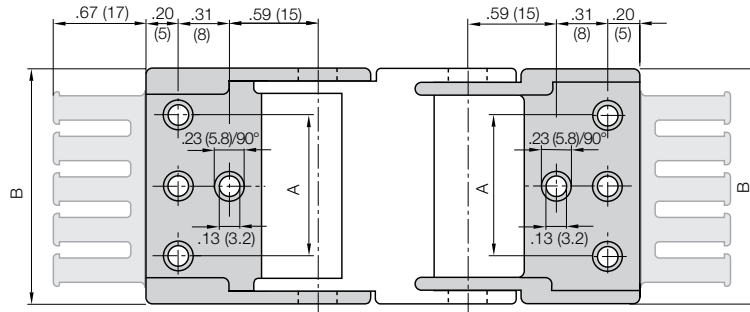


Possible installation configurations -

### Part Number Structure

080- 20- 12 PZ

- With assembled strain relief tiwrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



### Full set, for both ends:

080- [20-] [12] Full set, each part with pin/bore

### Single-part order:

080- [20-] [1] Mounting bracket with bore

080- [20-] [2] Mounting bracket with pin

080-16-12 - 080-20-12:

Center bores only

080-30-12 - 080-40-12:

Outer bores only

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)	Number of Teeth
B09-16	<b>080-16-12PZ</b>	<b>080-16-12</b>	— —	.95 (24.2)	2
B09-20	<b>080-20-12PZ</b>	<b>080-20-12</b>	— —	1.11 (28.2)	2
B09-30	<b>080-30-12PZ</b>	<b>080-30-12</b>	.87 (22)	1.50 (38.2)	3
B09-40	<b>080-40-12PZ</b>	<b>080-40-12</b>	1.26 (32)	1.90 (48.2)	4

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



Price Index



Series E2-15

Special Features / Options



IPA Qualification Certificate:  
Cleanroom test upon request



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



Flammability Class  
VDE 0304 IIC UL94 HB

Assembly Tips



Easy to assemble and disassemble  
Series 06 shown for demonstration  
purposes only

Usage Guidelines



- When large unsupported lengths and high additional loads are required with a small e-chain®
- For smooth, quiet operation due to small pitch
- If a large modular system in various designs is desired



- If a closed Energy Tube is required  
➤ Series R09 “Zipper”
- If filling without opening lids is required  
➤ Series 08 E-Z Chain

Features & Benefits

- 1 Universal mounting bracket with strain relief option
- 2 Large, assembly friendly pins for long unsupported lengths
- 3 Very smooth contours ensure the best possible cable life
- 4 Non snap-open or snap-open on the inner or outer radius
- 5 Lightweight, low price
- 6 Square stop-dog system for large additional loads
- 7 Brake feature reduces noise



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) E2-15-20-038-0

e-chain®

1 Set E2-150-20-34PZ

Mounting Bracket

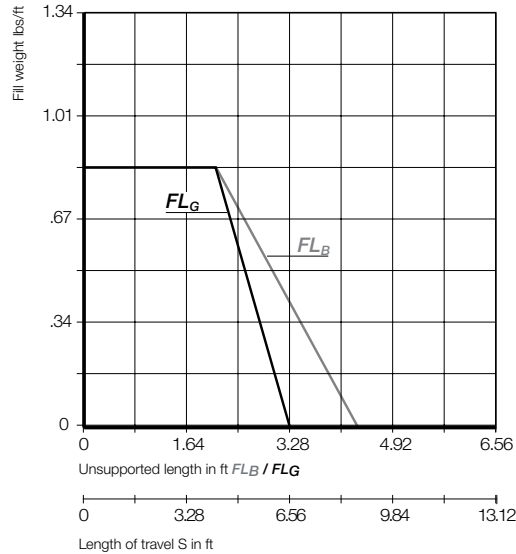
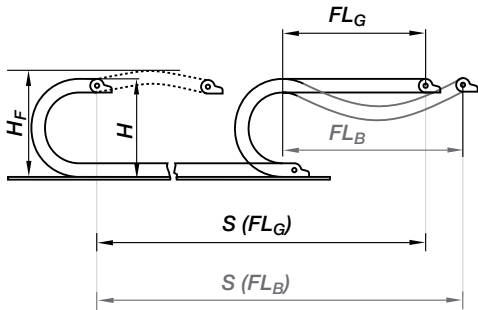
# e-chain system® E2 Micro Series E2-15/E2i-15/E2C-15 Installation Dimensions



E2-15  
E2i-15  
E2C-15

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



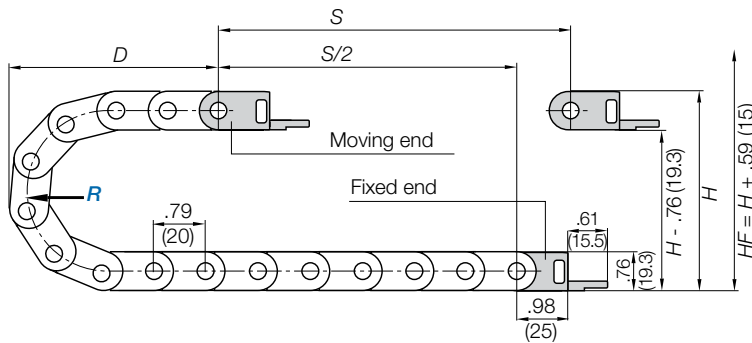
## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_f$  = Required clearance height



Pitch per link = .79" (20 mm)  
Links per ft (m) = 15.24 (50)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_f = H + .59$  in. (15 mm) (with .20 lbs/ft (0.3 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075*)
H	2.95 (75)	3.74 (95)	4.53 (115)	6.65 (169)
D	2.68 (68)	3.07 (78)	3.46 (88)	4.53 (115)
K	5.12 (130)	6.30 (160)	7.68 (195)	11.02 (280)



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



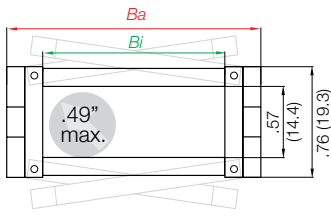
Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data



Details of material properties

► Chapter 1



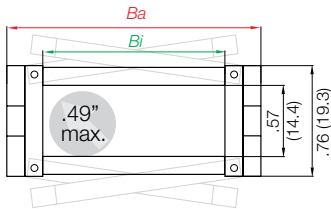
Series E2-15 - Snap-open along the outer radius from both sides



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



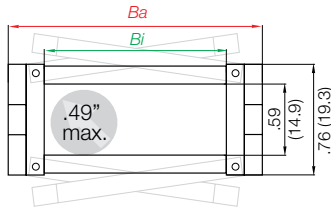
Series E2i-15 - Snap-open along the inner radius from both sides



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



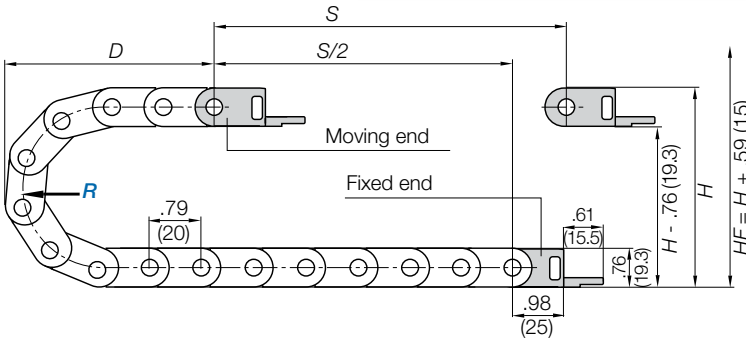
Series E2C-15 - One-piece, non snap-open



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



Supplement part number with required radius. Example: E2-15-20-038-0

Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Snap-open along outer radius	Snap-open along inner radius	One-piece non snap-open	Bi in. (mm)	Ba in. (mm)	Weight			
					E2-15 lbs/ft (kg/m)	E2i-15 lbs/ft (kg/m)	E2C-15 lbs/ft (kg/m)	
E2-15-10-	E2i-15-10-	E2C-15-10-	038	.39 (10)	.69 (17.4)	≈ 0.120 (0.18)	≈ 0.120 (0.18)	≈ 0.128 (0.19)
E2-15-13-	E2i-15-13-	E2C-15-13-	038	.51 (13)	.82 (20.8)	≈ 0.128 (0.19)	≈ 0.128 (0.19)	≈ 0.134 (0.20)
E2-15-16-	E2i-15-16-	E2C-15-16-	038	.63 (16)	.92 (23.4)	≈ 0.134 (0.20)	≈ 0.134 (0.20)	≈ 0.134 (0.20)
E2-15-20-	E2i-15-20-	E2C-15-20-	038	.79 (20)	1.08 (27.4)	≈ 0.141 (0.21)	≈ 0.141 (0.21)	≈ 0.141 (0.21)
E2-15-30-	E2i-15-30-	E2C-15-30-	038	1.18 (30)	1.47 (37.4)	≈ 0.161 (0.24)	≈ 0.161 (0.24)	≈ 0.161 (0.24)
E2-15-40-	E2i-15-40-	E2C-15-40-	038	1.57 (40)	1.87 (47.4)	≈ 0.175 (0.26)	≈ 0.175 (0.26)	≈ 0.175 (0.26)
E2-15-50-	E2i-15-50-	E2C-15-50-	038	1.97 (50)	2.26 (57.4)	≈ 0.195 (0.29)	≈ 0.195 (0.29)	≈ 0.195 (0.29)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E2-15-20-038-0

0=Standard color black.  
For other colors see Chapter 1

	028	038	048	075*
R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075*)
H	2.95 (75)	3.74 (95)	4.53 (115)	6.65 (169)
D	2.68 (68)	3.07 (78)	3.46 (88)	4.53 (115)
K	5.12 (130)	6.30 (160)	7.68 (195)	11.02 (280)

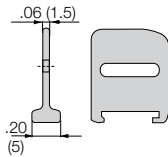
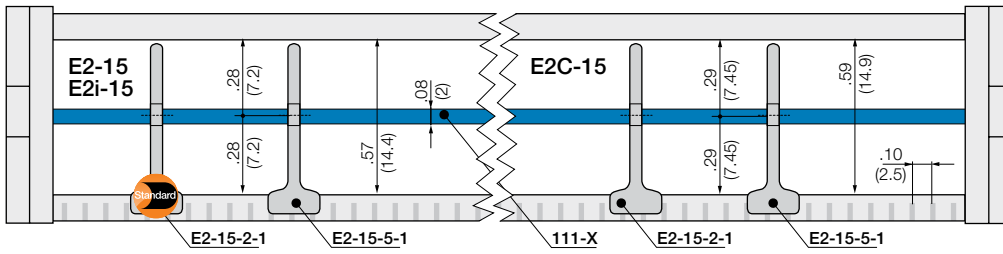
\*Radius 075 is only available for the E2C-15-40



e-chain system® E2 Micro  
Series E2-15/E2i-15/E2C-15  
Interior Separation



E2-15  
E2i-15  
E2C-15



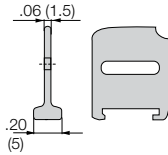
**Separator**

Unassembled **Part No. E2-15-2**

Assembled **Part No. E2-15-2-1**

• **Separator E2-15-2 Standard - for all applications**

For a simple vertical subdivision on e-chains®. Separators can be arranged anywhere in the Energy cross section.



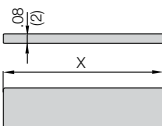
**Notch separator for notch crossbar**

Unassembled **Part No. E2-15-5**

Assembled **Part No. E2-15-5-1**

• **Notch separator E2-15-5**

**Locks safely in .10" (2.5 mm) increments**  
For exact positioning in e-chains®. Recommended for side-mounted applications.



**Full width shelf**

Unassembled **Part No. 110-X**

Assembled **Part No. 111-X**

• **Full width shelf 110-X**

This component is used in applications with many thin cables with similar diameters.

Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.39 (010)	110-10	111-10	1.18 (030)	110-30	111-30
.51 (013)	110-13	111-13	1.57 (040)	110-40	111-40
.63 (016)	110-16	111-16	1.97 (050)	110-50	111-50
.79 (020)	110-20	111-20			

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



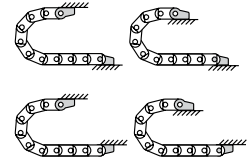
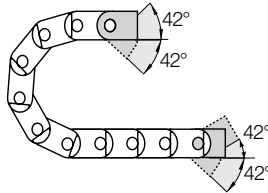


### Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiwrap plates

#### Moving end

- E2-150-...-3PZ two side pivoting
- E2-150-...-5PZ one side\* pivoting
- E2-150-...-1PZ locking

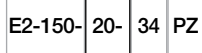


Possible installation configurations -

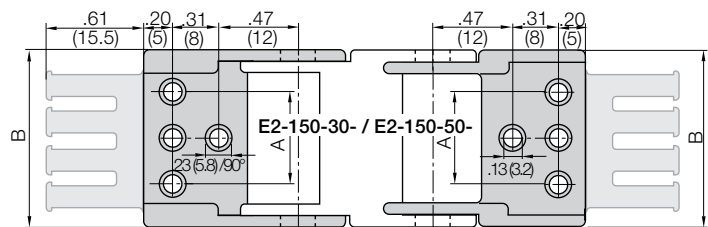
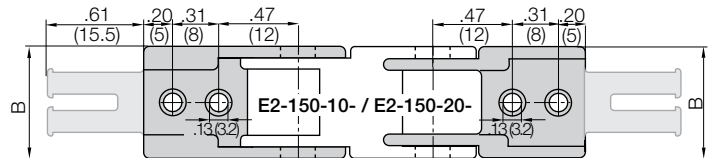
#### Fixed end

- E2-150-...-4PZ two side pivoting
- E2-150-...-6PZ one side\* pivoting
- E2-150-...-2PZ locking

### Part Number Structure



- With assembled strain relief tiwrap plates
- Complete Set - two side pivoting
- Width
- Mounting brackets for selected chain type



### Full set, for both ends:

E2-150- [20-] [34] Full set, each part with pin/bore

Single-part order:

E2-150- [20-] [3] Mounting bracket with bore

E2-150- [20-] [4] Mounting bracket with pin

E2-150-10-12 - E2-150-20-12: Center bores only  
E2-150-30-12 - E2-150-50-12: Outer bores only

Chain Width	Part No. full set with tiwrap plate two side pivoting	Part No. full set with tiwrap plate one side* pivoting	Part No. full set with tiwrap plate locking	Dimension A in. (mm)	Dimension B in. (mm)	Number of Teeth
-10	E2-150-10-34PZ	E2-150-10-56PZ	E2-150-10-12PZ	—	.70 (17.8)	1
-13	E2-150-13-34PZ	E2-150-13-56PZ	E2-150-13-12PZ	—	.82 (20.8)	1
-16	E2-150-16-34PZ	E2-150-16-56PZ	E2-150-16-12PZ	—	.94 (23.8)	2
-20	E2-150-20-34PZ	E2-150-20-56PZ	E2-150-20-12PZ	—	1.09 (27.8)	2
-30	E2-150-30-34PZ	E2-150-30-56PZ	E2-150-30-12PZ	.87 (22)	1.49 (37.8)	3
-40	E2-150-40-34PZ	E2-150-40-56PZ	E2-150-40-12PZ	1.26 (32)	1.88 (47.8)	4
-50	E2-150-50-34PZ	E2-150-50-56PZ	E2-150-50-12PZ	1.65 (42)	2.27 (57.8)	5

\*One-side pivoting: Pivot angle = Bending radius.  
One side pivoting only to the inner radius

## Additional Accessories



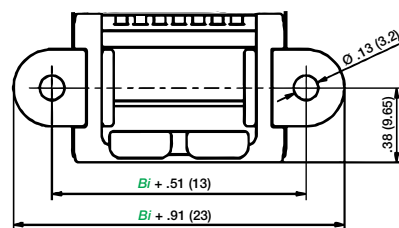
**Quick flange**- the quick flange can be clipped-in laterally in all mounting brackets. Housing for hexagonal nut or cylinder head screws M3.

Single:

Part no. E2-150-QF

Includes mounting bracket:

Part No. E2-150-20-34PZQF



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



**Price Index**


Series 08

**Special Features / Options**

**IPA Qualification Certificate:**  
Cleanroom test upon request

**ESD Classification:**  
Electrically conductive ESD/  
ATEX version upon request

**Flammability Class**  
VDE 0304 IIC UL94 HB

**Assembly Tips**


Easy to assemble and disassemble

**Usage Guidelines**


- If quiet operation is required
- If cost is a factor
- If connection options are required (Quicksnap, Quickfix, etc.)
- If high torsional rigidity is required



- If snap-open links are required
  - **Series 09 "Zipper"**
- If quick insertion of cables with preassembled connectors is required
  - **Series E08/Z08 E-Z Chain**

**Features & Benefits**

- 1 Small pitch for very quiet operation
- 2 High torsional rigidity
- 3 Mounting brackets with strain relief options
- 4 One-piece, non snap-open e-chain®
- 5 Very lightweight - low price
- 6 Dirt repellent exterior


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 08-30-038-0

e-chain®

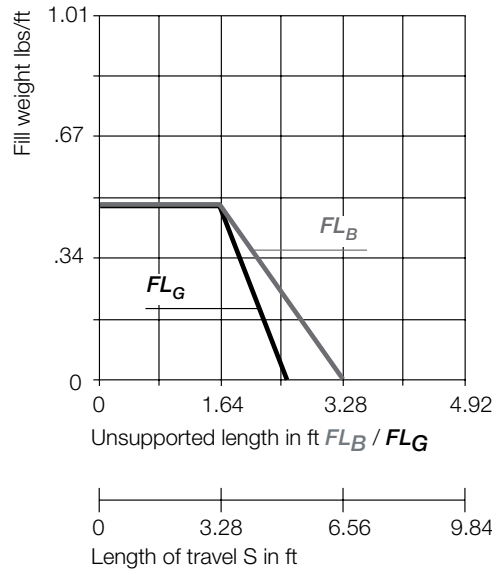
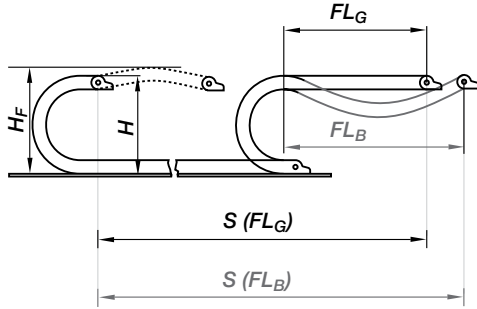
1 Set 080-30-12PZ

Mounting Bracket

# e-chain system® E2 Micro Series 08 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



## Short Travels - Unsupported

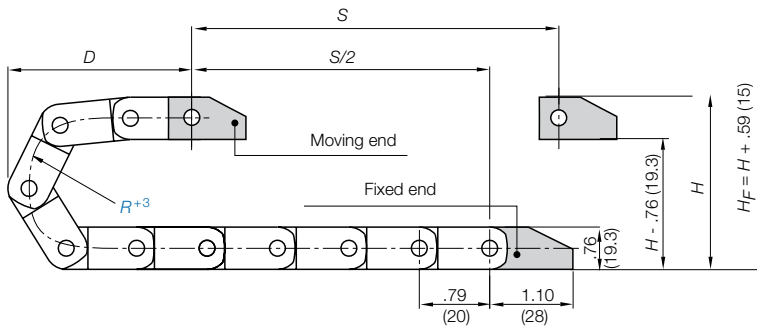


Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

\*If the mounting bracket location is set lower



Pitch per link = .79" (20 mm)  
Links per ft (m) = 15.24 (50)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .59 \text{ in. (15 mm)}$  (with .20 lbs/ft (0.3 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.98 (025*)	1.10 (028)	1.50 (038)	1.89 (048)
H	2.72 (69)	2.95 (75)	3.74 (95)	4.53 (115)
D	2.56 (65)	2.68 (68)	3.07 (78)	3.46 (88)
K	4.72 (120)	5.12 (130)	6.30 (160)	7.48 (190)

\*Only for 08-10 and 08-20 e-chain®



PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

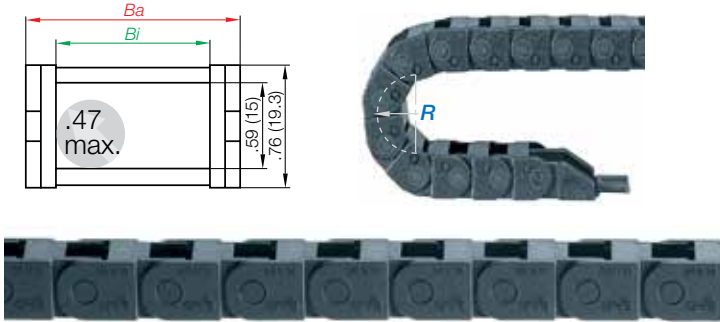
## Technical Data



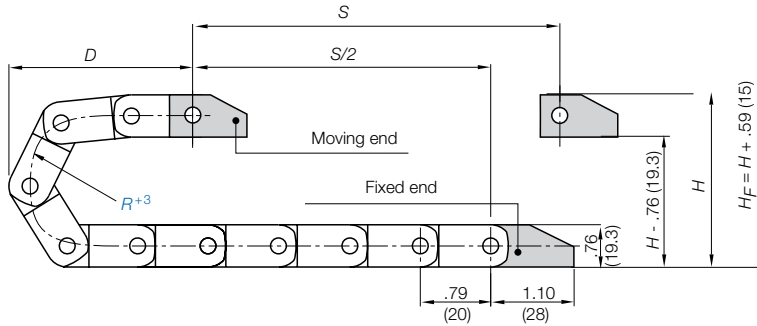
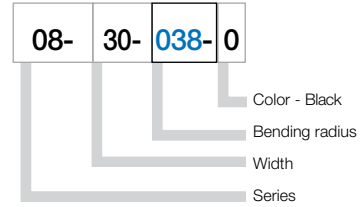
Details of material properties

► Chapter 1

Series 08 - e-chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 08-20-**038**-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
08-10- <input type="text"/> -0	.39 (10)	.72 (18.2)	≈ 0.14 (0.21)
08-13- <sup>**</sup> <input type="text"/> -0	.51 (13)	.83 (21.2)	≈ 0.15 (0.23)
08-16- <input type="text"/> -0	.63 (16)	.95 (24.2)	≈ 0.16 (0.24)
08-20- <input type="text"/> -0	.79 (20)	1.11 (28.2)	≈ 0.17 (0.25)
08-30- <input type="text"/> -0	1.18 (30)	1.50 (38.2)	≈ 0.19 (0.28)
08-40- <input type="text"/> -0	1.57 (40)	1.90 (48.2)	≈ 0.21 (0.31)
08-50- <input type="text"/> -0	1.97 (50)	2.29 (58.2)	≈ 0.25 (0.37)

Choose from the radii below for all of the above sizes

*Radius* (mm) Example: 08-20-**038**-0

	<b>025*</b>	<b>028</b>	<b>038</b>	<b>048</b>
<i>R</i>	.98 (025*)	1.10 (028)	1.50 (038)	1.89 (048)
<i>H</i>	2.72 (69)	2.95 (75)	3.74 (95)	4.53 (115)
<i>D</i>	2.56 (65)	2.68 (68)	3.07 (78)	3.46 (88)
<i>K</i>	4.72 (120)	5.12 (130)	6.30 (160)	7.48 (190)

\*Only for 08-10 and 08-20 e-chain®  
0=Standard color black. For other colors see Chapter 1  
\*\*only for 028 and 038 radius

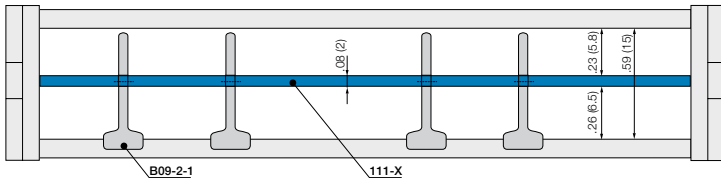
Additional Accessories



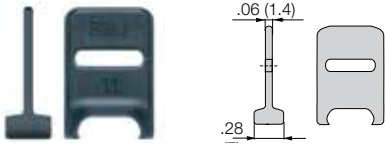
Quicksnap - the complete, detachable mounting unit, upon request

Part No.  
080-20-QS  
080-30-QS

# e-chain system® E2 Micro Series 08 Interior Separation - Mounting Brackets

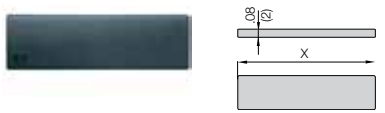


**Separators, full-width shelves -**  
In the standard configuration separators are assembled every other Energy-Chain® link!



**Vertical Separator, slotted**  
Unassembled **Part No. B09-2**  
Assembled **Part No. B09-2-1**

- **Slotted separator B09-2**  
This component is used when vertical separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.



**Full width shelf**  
Unassembled **Part No. 110-X**  
Assembled **Part No. 111-X**

- **Full width shelf 110-X**  
This component is used in applications with many thin cables with similar diameters.

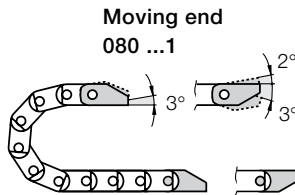
Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.39 (010)	<b>110-10</b>	<b>111-10</b>	.79 (020)	<b>110-20</b>	<b>111-20</b>	1.97 (050)	<b>110-50</b>	<b>111-50</b>
.51 (013)	<b>110-13</b>	<b>111-13</b>	1.18 (030)	<b>110-30</b>	<b>111-30</b>			
.63 (016)	<b>110-16</b>	<b>111-16</b>	1.57 (040)	<b>110-40</b>	<b>111-40</b>			

## Mounting Brackets

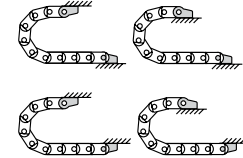


### Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates



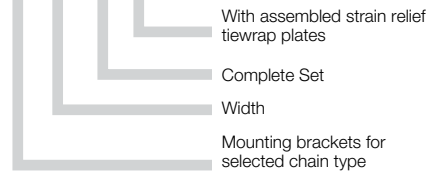
**Fixed end  
080...2**



Possible installation configurations -

### Part Number Structure

**080- 20- 12 PZ**



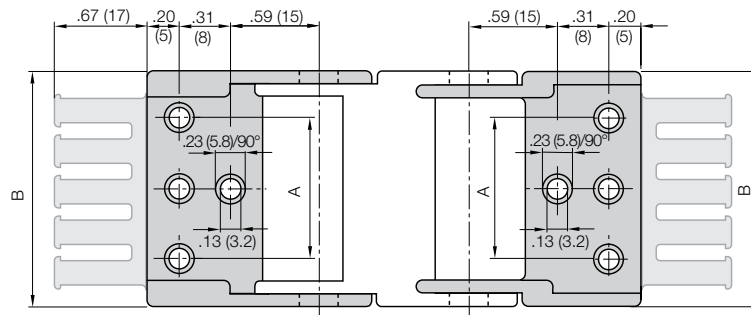
### Full set, for both ends:

**080- 20- 12** Full set, each part with pin/bore

### Single-part order:

**080- 20- 1** Mounting bracket with bore

**080- 20- 2** Mounting bracket with pin

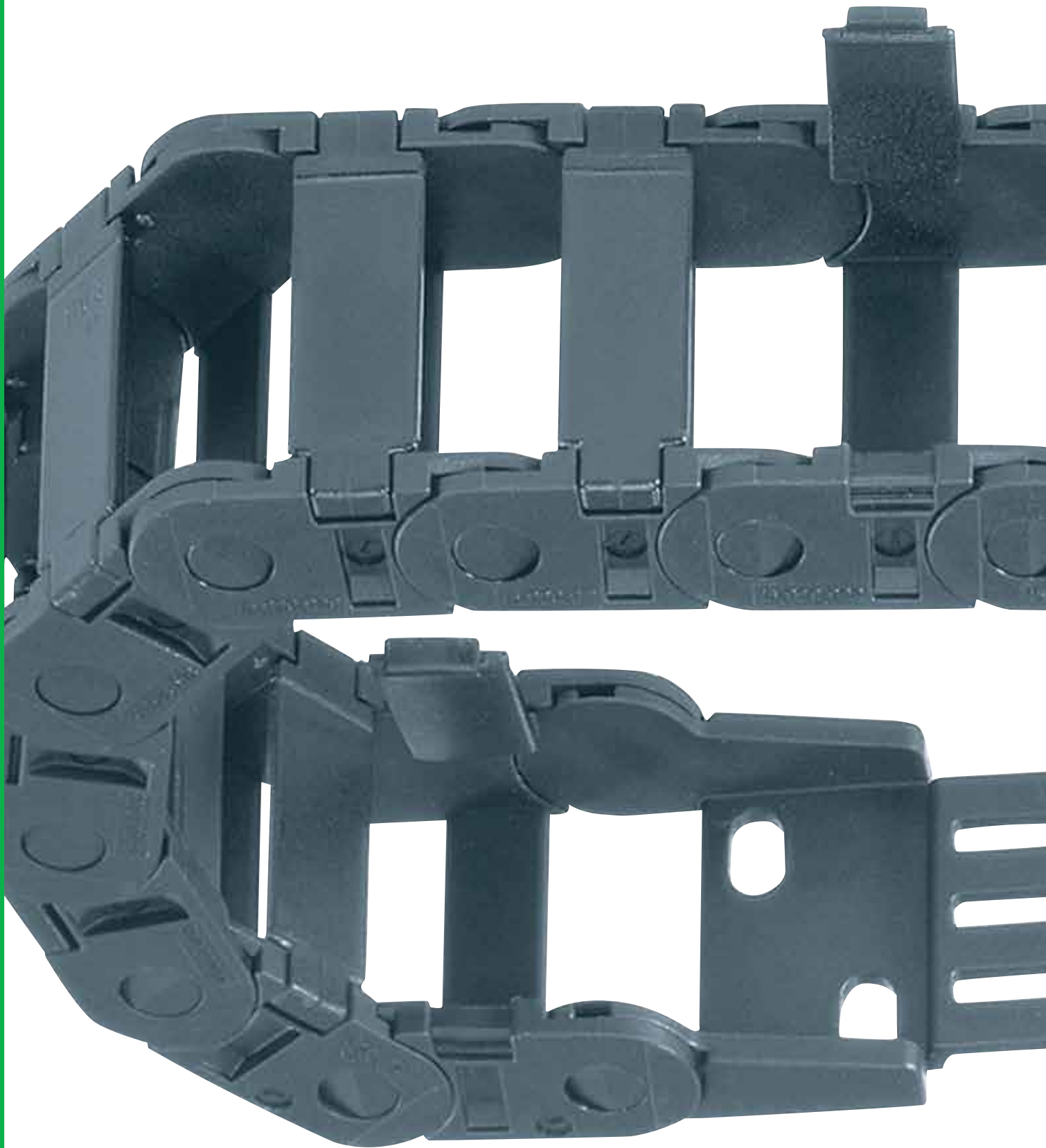


**080-10-12 - 080-20-12:** Center bores only

**080-30-12 - 080-50-12:** Outer bores only

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)	Number of Teeth
08-10	<b>080-10-12PZ</b>	<b>080-10-12</b>	—	.72 (18.2)	1
08-13	—	<b>080-13-12</b>	—	.83 (21.2)	—
08-16	<b>080-16-12PZ</b>	<b>080-16-12</b>	—	.95 (24.2)	2
08-20	<b>080-20-12PZ</b>	<b>080-20-12</b>	—	1.11 (28.2)	2
08-30	<b>080-30-12PZ</b>	<b>080-30-12</b>	.87 (22)	1.50 (38.2)	3
08-40	<b>080-40-12PZ</b>	<b>080-40-12</b>	1.26 (32)	1.90 (48.2)	4
08-50	<b>080-50-12PZ</b>	<b>080-50-12</b>	1.65 (42)	2.29 (58.2)	5







# igus® E2 Mini



# E2 mini - Small sized e-chains

**System E2 mini** is low-cost and can come equipped with interior separation to prevent cables from chaffing, twisting and corkscrewing. These e-chains can be used in applications with long, unsupported lengths and offer a variety of different connection options

## Typical industries and applications

- Construction machinery
- Furniture
- Packaging machines
- Textile machines
- Vehicle construction
- Woodworking machines
- Glass machines
- Automation
- General machinery



Special equipment: Electrically conductive  
ESD/ATEX version upon request



Cleanroom Class 1 (ISO class 3) for Series 10, tested  
by the Dryden Engineering Company, California



Flammability Class  
VDE 0304 IIC UL94 HB





E2 mini e-chain®, RBR-version with reverse bending radius



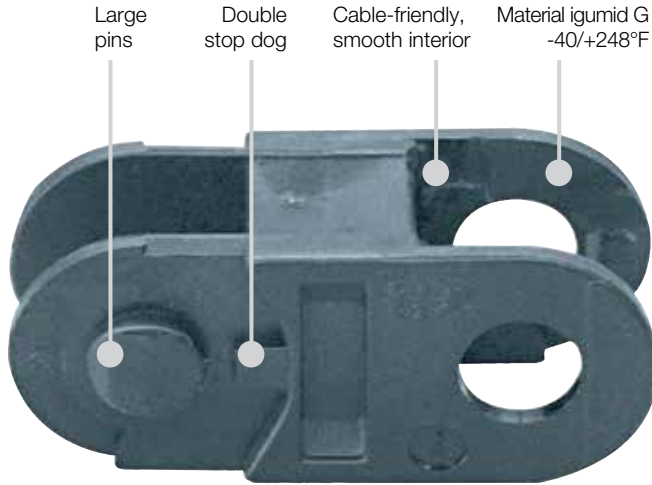
E2 mini e-chain® in a tooling machine, coolant resistant



Long-travel applications up to 131 ft. (40 m) are possible  
- here: Series 10 in textile machine

# e-chain system® E2 Mini

## Selection Guide



- Small pitch for smooth running
- High torsional rigidity
- Double stop dog and large pins for long service life
- Optimized relationship: weight - stability
- Large pins for long unsupported lengths
- Easy to assemble
- Various interior separation options
- You can find more technical data about the material, chemical resistance, temperatures **Design, Chapter 1**

### E2 Mini - one-piece e-chains®

One-piece, non snap-open



Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
10	.71	(18)	.59-3.94	(15-100)	1.02-4.45	(26-113)	.91	(23)	1.10-7.09	(028-180)
11.031	.91	(23)	1.22	(31)	1.62	(41.2)	1.10	(28)	1.77-2.76	(045-070)
11.080	1.10	(28)	3.15	(80)	3.66	(93)	1.31	(33.4)	1.50-2.56	(038-065)
11.1/11.2	1.61	(41)	.59-.98	(15-25)	1.00-1.40	(25.5-35.5)	1.81	(46)	1.57-3.94	(040-100)

### E2 Mini - one-piece e-chains®

Snap-open along the inner radius with film-hinge



Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
14	.79	(20)	.59-1.97	(15-50)	1.02-2.40	(26-61)	.98	(25)	1.10-4.92	(028-125)
F17	1.26	(32)	.59	(15)	1.02	(26)	1.54	(39)	1.89	(048)

### E2 Mini - two-piece e-chains®

Snap-open along the outer radius



Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
B15	.67	(17)	.59-3.94	(15-100)	1.02-4.45	(26-113)	.91	(23)	1.50-7.09	(038-180)
B17	1.26	(32)	.59-3.94	(15-100)	1.00-4.45	(25.5-113)	1.54	(39)	1.89-4.92	(048-125)

### E2 Mini - two-piece e-chains®

Snap-open along the inner radius



Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
B15i	.67	(17)	.59-3.94	(15-100)	1.02-4.45	(26-113)	.91	(23)	1.50-7.09	(038-180)
B17i	1.26	(32)	.98-1.50	(25-38)	1.40-1.91	(35.5-48.5)	1.54	(39)	1.89-4.92	(048-125*)

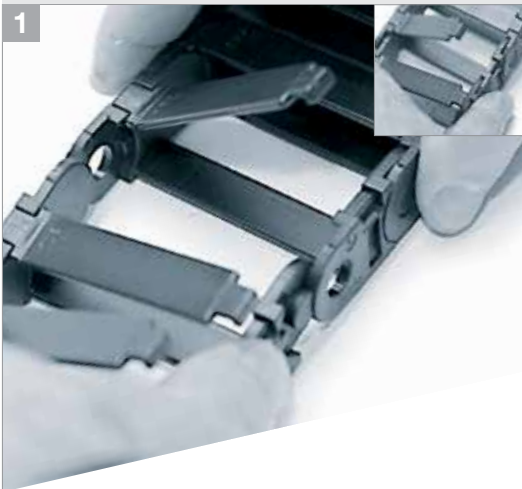


Available from stock. Orders ship as early as today.\*

\*On average 90% of orders ship the same day..

# e-chain system® E2 Mini Assembly Instructions

## Assembling | E2 mini



Push, click and snap in pin



Push and snap crossbars

## Separating | E2 mini



Lever crossbars open



Open crossbars



Release side link



Twist and pull apart

**Price Index**


Series 10

**Special Features / Options**


Cleanroom Class 1 (ISO class 3)


**ESD Classification:**  
 Electrically conductive ESD/  
 ATEX version upon request

**Assembly Tips**


Easy to assemble and disassemble

**Usage Guidelines**


- If snap-open links are not necessary
- If a small but very stable chain is required

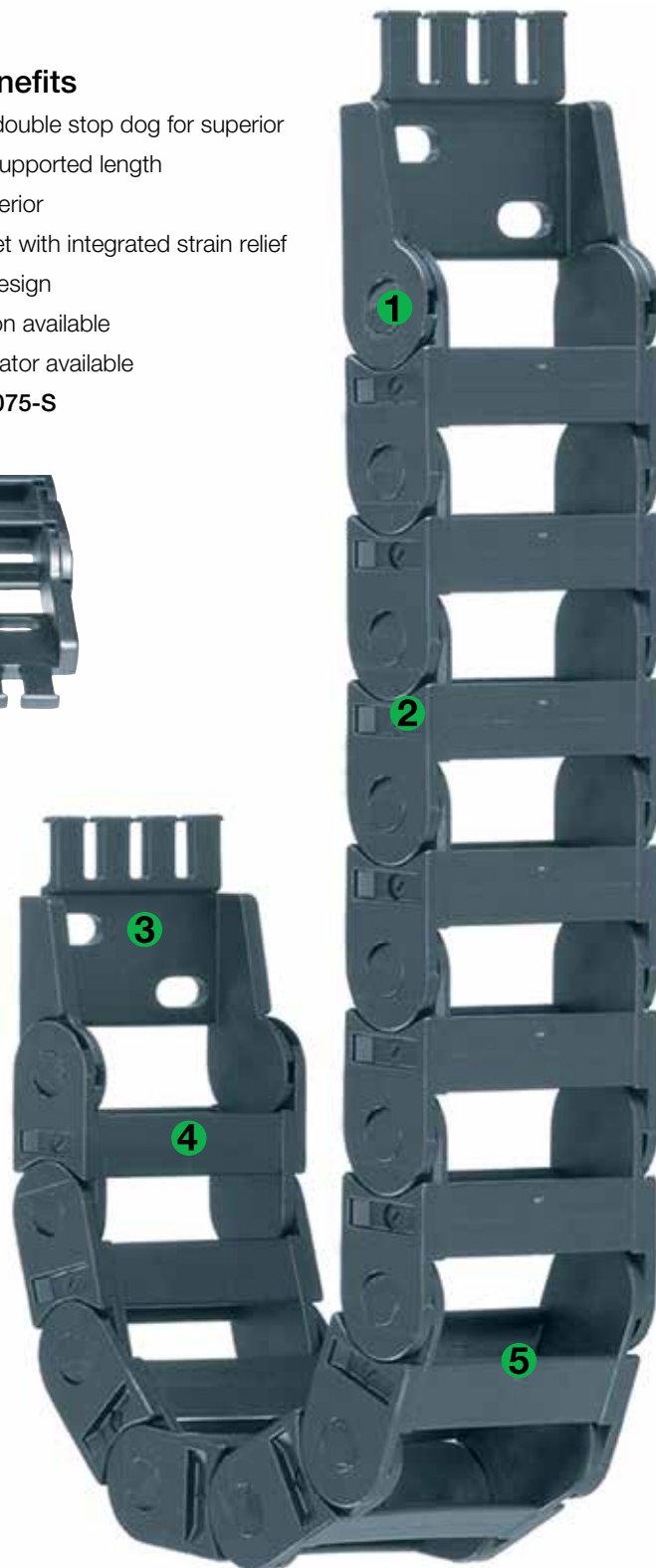


- If snap-open links are necessary
  - **Series 15 "Zipper"**
- If quick insertion of cables with preassembled connector is required
  - **Series E14 E-Z Chain**

**Features & Benefits**

- 1 Large pins and double stop dog for superior life and long unsupported length
- 2 Dirt repellent exterior
- 3 Mounting bracket with integrated strain relief
- 4 One piece link design
- 5 Interior separation available
- 6 Molded-in separator available

Series 10-050-075-S


**Order Example: Complete e-chain®**

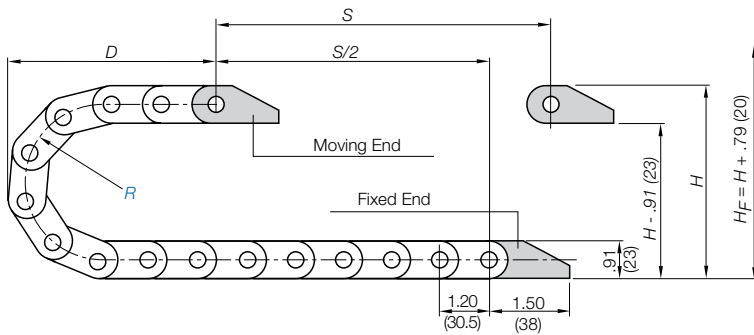
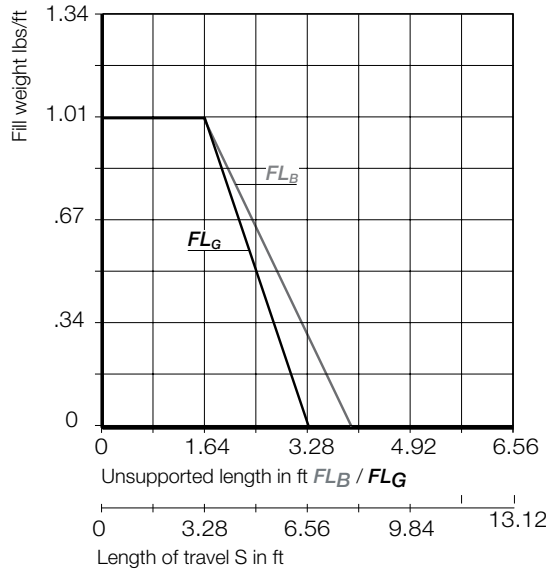
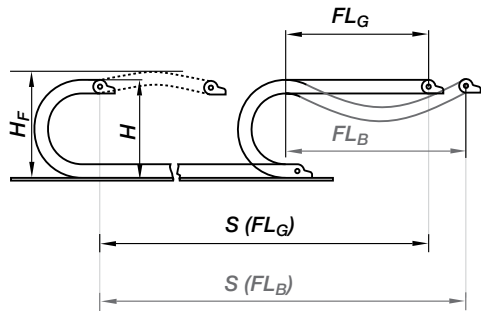
Please indicate chain length or number of links. Example:

3.28 ft (1 m) **10-025-038-0****e-chain®**With 2 separators **111** assembled every 2nd link**Interior Separation**1 Set **1025-12PZ****Mounting Bracket**

# e-chain system® E2 Mini Series 10 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
 Links per ft (m) = 10.06 (33)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .79$  in. (20 mm) (with 1.01 lbs/ft (1.5 kg/m) fill weight).  
 Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.11 (79)	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
D	3.35 (85)	3.74 (95)	4.3 (105)	5.20 (132)	6.18 (157)	6.57 (167)	7.16 (182)	7.95 (202)	9.33 (237)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



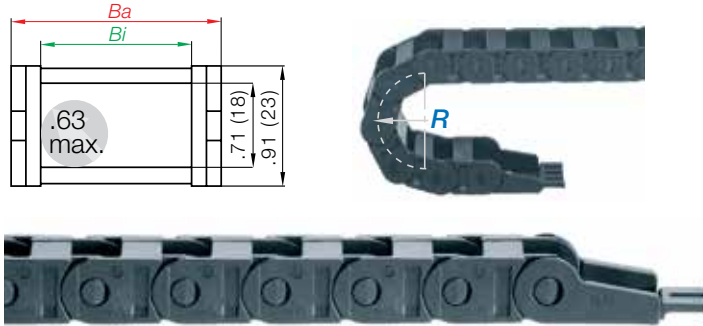
### Technical Data



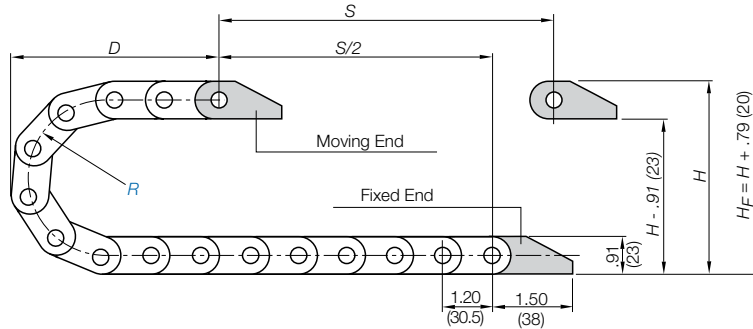
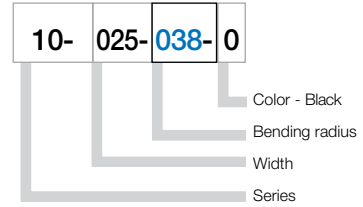
Details of material properties

► Chapter 1

Series 10 - e-chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 10-025-**038**-0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
10-015- <input type="checkbox"/> -0	.59 (15)	1.02 (26)	≈ 0.24 (0.35)
10-025- <input type="checkbox"/> -0	.98 (25)	1.42 (36)	≈ 0.27 (0.40)
10-038- <input type="checkbox"/> -0	1.50 (38)	1.93 (49)	≈ 0.31 (0.46)
10-050- <input type="checkbox"/> -0	1.97 (50)	2.40 (61)	≈ 0.35 (0.52)
10-5- <input type="checkbox"/> -0	2.48 (63)	2.99 (76)	≈ 0.42 (0.63)
10-6 <input type="checkbox"/> -0	3.15 (80)	3.70 (94)	≈ 0.47 (0.70)
10-7 <input type="checkbox"/> -0	3.94 (100)	4.45 (113)	≈ 0.51 (0.76)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 10-025-**038**-0

	028	038	048	075	100	110	125	145	180
R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.11 (79)	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
D	3.35 (85)	3.74 (95)	4.3 (105)	5.20 (132)	6.18 (157)	6.57 (167)	7.16 (182)	7.95 (202)	9.33 (237)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

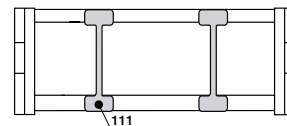
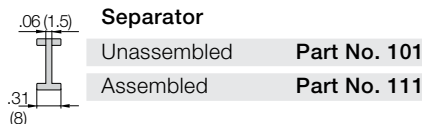
0=Standard color black. For other colors see Chapter 1

Interior Separation



Option 1: Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required. By standard, vertical separators are assembled every other e-chain® link.



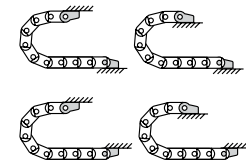
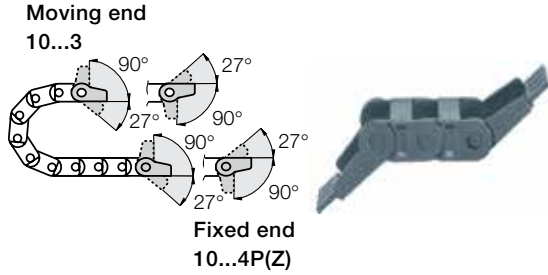


# e-chain system® E2 Mini Series 10 Mounting Brackets - Plastic

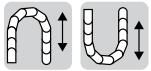


## Option 1: pivoting

- Short and long travel
- Space-restricted conditions
- Corrosion resistant

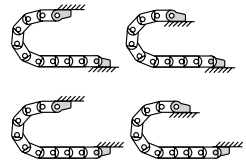
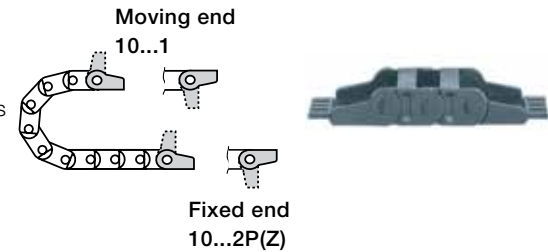


Possible installation configurations -



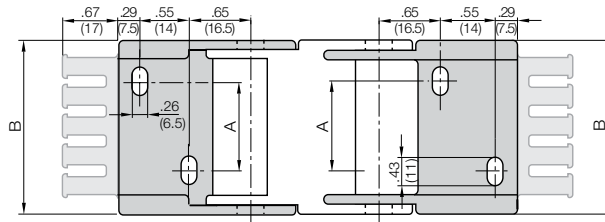
## Option 2: locking

- Vertical hanging/standing travels
- Extreme accelerations
- Corrosion resistant

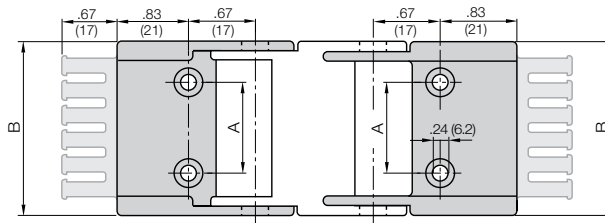


Possible installation configurations -

For e-chain  
10-015 to 10-050



For e-chain  
10-5 to 10-7



### Part Number Structure



- With tiewrap plate
- Without tiewrap plate
- Complete Set  
12 = Locking  
34 = Pivoting
- Mounting brackets for selected chain type

Part number examples are shown for pivoting brackets. For locking brackets fill in the blank with

Part No. Full Set (pivoting)  
with Tiewrap Plate  
Series 10 with 25mm inner width  
1025-34PZ

Part No. Full Set (pivoting)  
without Tiewrap Plate  
Series 10 with 25 mm inner width  
1025-34P

Full set, for both ends:  
   Full set, each part  
with pin/bore + tiewrap plate

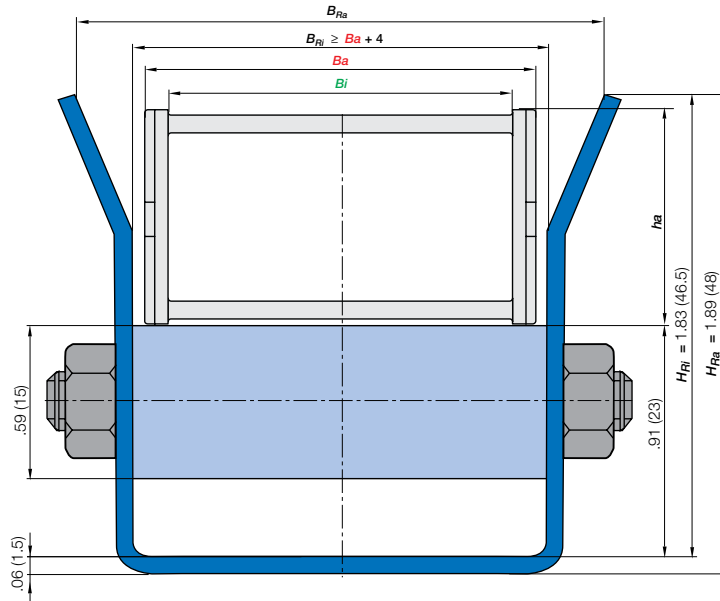
Single-part order:  
   Mounting bracket with bore  
+ tiewrap plate  
   Mounting bracket with pin  
+ tiewrap plate

For Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)
10-015	1015- <input type="text" value=""/> PZ	1015- <input type="text" value=""/> P	— —	1.00 (25.5)
10-025	1025- <input type="text" value=""/> PZ	1025- <input type="text" value=""/> P	.39 (10)	1.40 (35.5)
10-038	1038- <input type="text" value=""/> PZ	1038- <input type="text" value=""/> P	.91 (23)	1.91 (48.5)
10-050	1050- <input type="text" value=""/> PZ	1050- <input type="text" value=""/> P	1.38 (35)	2.38 (60.5)
10-5	105- <input type="text" value=""/> PZ	105- <input type="text" value=""/> P	1.89 (48)	2.95 (75.0)
10-6	106- <input type="text" value=""/> PZ	106- <input type="text" value=""/> P	2.56 (65)	3.62 (92.0)
10-7	107- <input type="text" value=""/> PZ	107- <input type="text" value=""/> P	3.35 (85)	4.41 (112.0)

For pivoting brackets choose   
For locking brackets choose   
Example: 1025-  PZ



One-piece guide troughs made of steel are available for the Series 10 Energy Chains®. These guide troughs are available from stock for outer chain widths up to 4.45 in. (113 mm). For wider e-chains® and Tubes, special solutions are possible with short lead times. No installation sets are required for these trough sizes since the guide troughs consist of a one-piece U-profile. The joint connection with this type of guide trough is specified individually for every application.



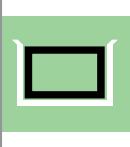
#### Dimensions Guide troughs 91-10 — 91-71

For Series	Part No.	BRa		BRi		Weight	
		in.	(mm)	in.	(mm)	lbs/ft	(kg/m)
<b>10-015</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-10</b>	1.59	(40.5)	1.18	(30)	1.01	(1.50)
Glide bar 6.56 ft. (2m section)	<b>91-11</b>	1.59	(40.5)	1.18	(30)	.30	(.45)
<b>10-025</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-20</b>	1.99	(50.5)	1.57	(40)	1.11	(1.65)
Glide bar 6.56 ft. (2m section)	<b>91-21</b>	1.99	(50.5)	1.57	(40)	.38	(.57)
<b>10-038</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-30</b>	2.46	(62.5)	2.05	(52)	1.21	(1.80)
Glide bar 6.56 ft. (2m section)	<b>91-31</b>	2.46	(62.5)	2.05	(52)	.46	(.68)
<b>10-050</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-40</b>	2.85	(72.5)	2.44	(62)	1.28	(1.90)
Glide bar 6.56 ft. (2m section)	<b>91-41</b>	2.85	(72.5)	2.44	(62)	.61	(.91)
<b>10-5</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-50</b>	3.60	(91.5)	3.19	(81)	1.52	(2.26)
Glide bar 6.56 ft. (2m section)	<b>91-51</b>	3.60	(91.5)	3.19	(81)	.84	(1.25)
<b>10-6</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-60</b>	4.27	(108.5)	3.86	(98)	1.83	(2.72)
Glide bar 6.56 ft. (2m section)	<b>91-61</b>	4.27	(108.5)	3.86	(98)	.91	(1.35)
<b>10-7</b>							
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-70</b>	5.06	(128.5)	4.65	(118)	2.13	(3.17)
Glide bar 6.56 ft. (2m section)	<b>91-71</b>	5.06	(128.5)	4.65	(118)	1.14	(1.70)

Trough material in general: St 1203 galvanized



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



**Price Index**


Series 11.031

**Special Features / Options**


ESD Classification:  
Electrically conductive ESD  
version upon request

**Assembly Tips**


Easy to assemble and disassemble

**Usage Guidelines**

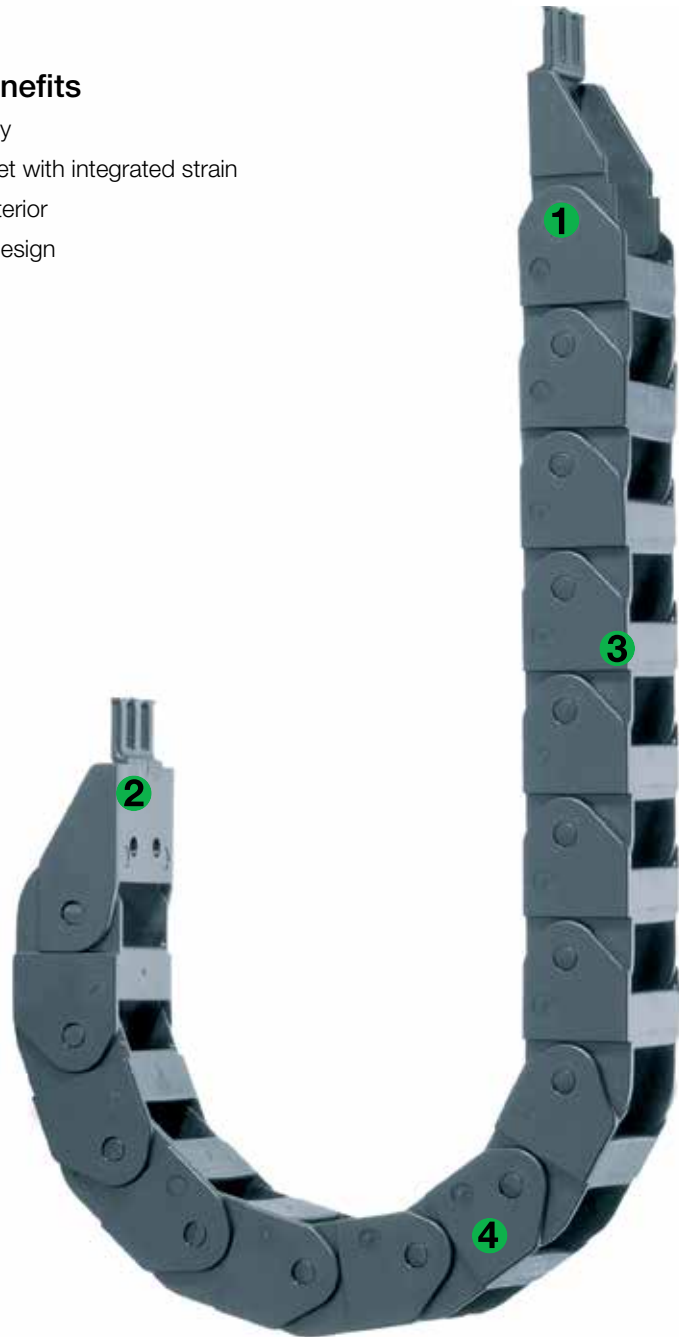

- If space is restricted
- If many cables are arranged vertically adjacent



- If snap-open links are required
  - similar width/height from Series "Zipper"
- If quick insertion of cables with preassembled connector is required
  - similar width/height from Series E-Z Chain

**Features & Benefits**

- 1 Torsional stability
- 2 Mounting bracket with integrated strain
- 3 Dirt repellent exterior
- 4 One piece link design


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 11.031.070.0



e-chain®

1 Set 11.031.12PZ

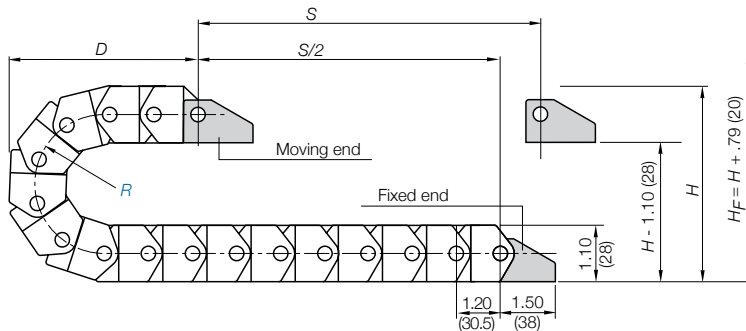
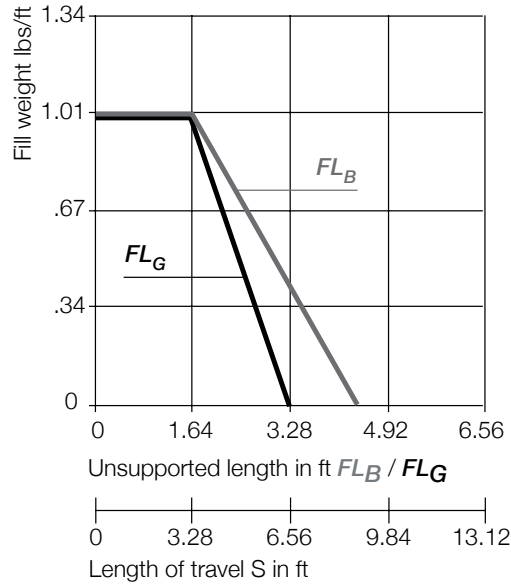
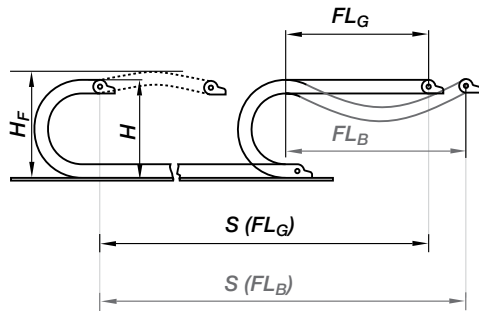


Mounting Bracket

# e-chain system® E2 Mini Series 11.031 Installation Dimensions

Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
 Links per ft (m) = 10.06 (33)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .79$  in. (20 mm) (with .34 lbs/ft (0.5 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.77 (045)	2.76 (070)
H	4.84 (123)	6.81 (173)
D	3.54 (107)	5.20 (132)
K	8.07 (205)	11.22 (285)



11.031

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data

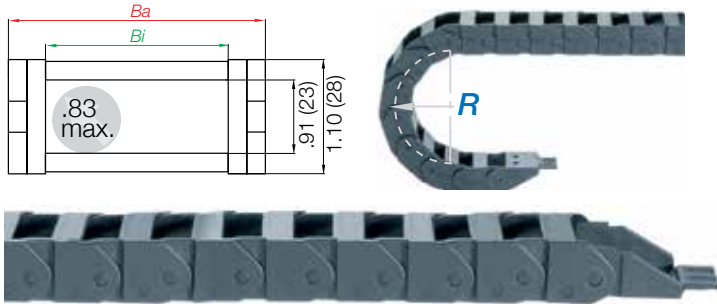


Details of material properties

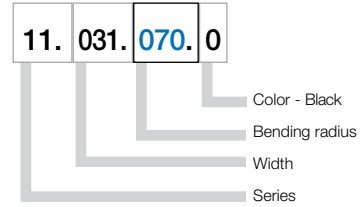
► Chapter 1

Series 11.031 - e-chain® non snap-open

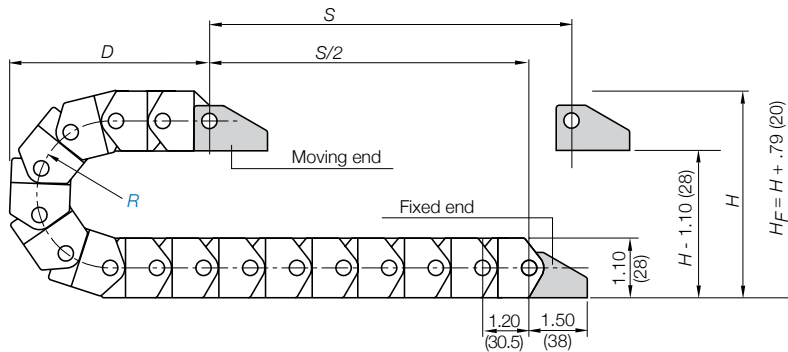
igus®  
 e-chain system®



Part Number Structure



Telephone 1-800-521-2747



Supplement part number with required radius. Example: 11.031. **070** .0  
 Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
11.031. <input type="text"/> .0	1.22 (31)	1.62 (41.2)	≈ 0.29 (0.43)
Choose from the radii below for all of the above sizes Radius (mm) Example: 11.031. <b>070</b> .0			

	<b>045</b>	<b>070</b>
<b>R</b>	1.77 (045)	2.76 (070)
<b>H</b>	4.84 (123)	6.81 (173)
<b>D</b>	3.54 (107)	5.20 (132)
<b>K</b>	8.07 (205)	11.22 (285)

0=Standard color black. For other colors see Chapter 1

Internet: igus.com  
 email: sales@igus.com  
 QuickSpec: igus.com/quickspec

# e-chain system® E2 Mini

## Series 11.031

### Mounting Brackets - plastic one piece - pivoting

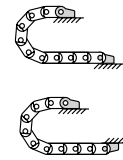
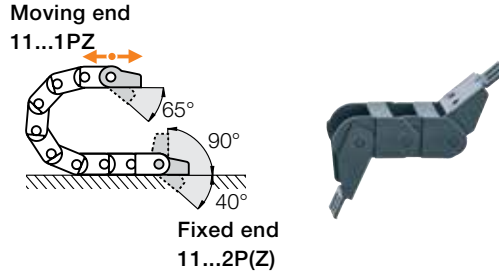


11.031

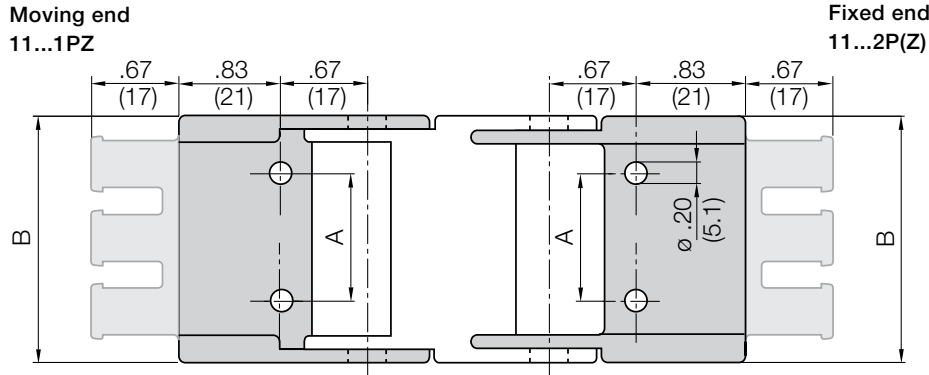
**Standard**

#### Option: pivoting

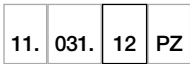
- Short and long travel
- Space-restricted conditions
- Corrosion resistant



Possible installation configurations -



#### Part Number Structure



- With tiwrap plate
- Complete Set = 12
- Width
- Mounting brackets for selected chain type

#### Full set, for both ends:

**11.031.12 PZ** Full set, each part with pin/bore + tiwrap plate

#### Single-part order:

**11.031.1 PZ** Mounting bracket with bore + tiwrap plate

**11.031.2 PZ** Mounting bracket with pin + tiwrap plate

For Chain Type	Part No.	Part No.	Dimension A		Dimensions B		Number of teeth
	Full set with Tiwrap Plate	Full Set without Tiwrap Plate	in.	(mm)	in.	(mm)	
11.031	<b>11.031.12 PZ</b>	<b>11.031.12P</b>	.63	(16)	1.65	(42)	3

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



**Price Index**


Series 11.080

**Special Features / Options**


ESD Classification:  
Electrically conductive ESD  
version upon request

**Assembly Tips**


Easy to assemble and disassemble

**Usage Guidelines**

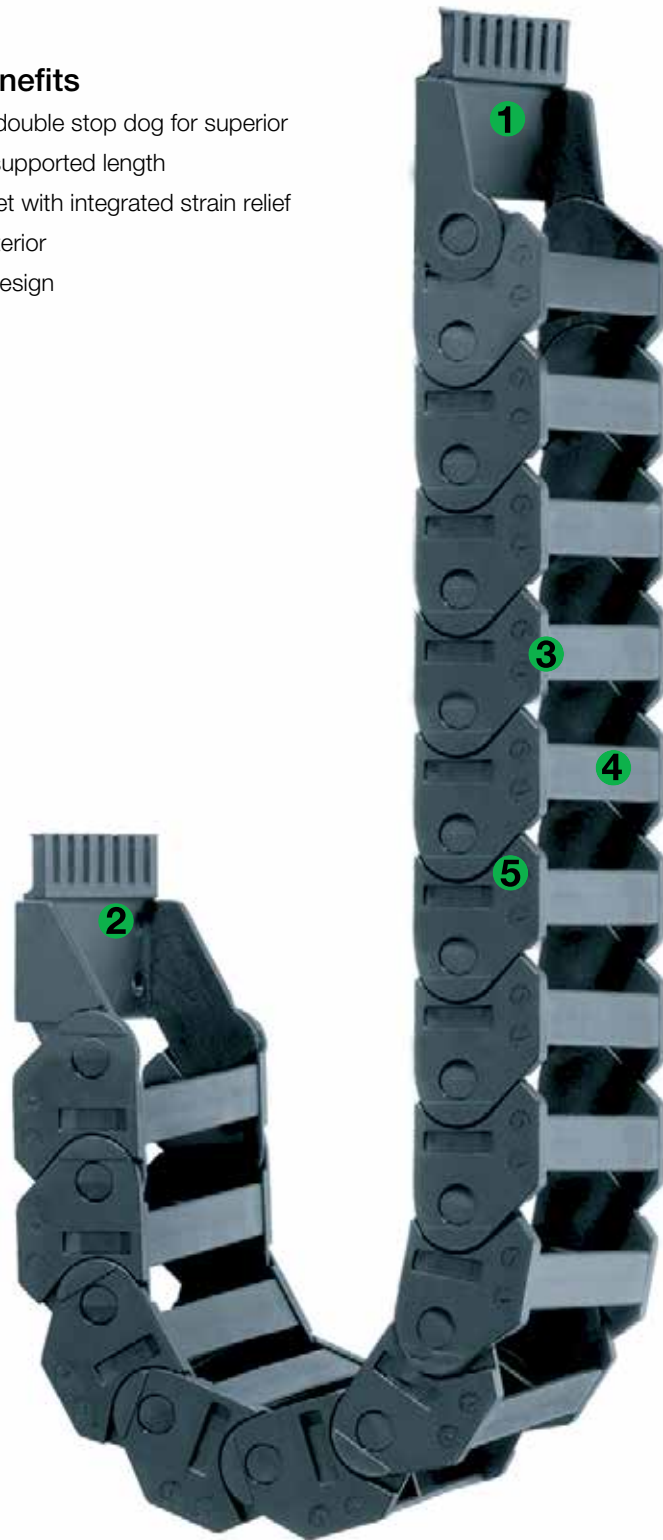

- If space is restricted
- If many cables are arranged vertically adjacent



- If snap-open links are required
  - similar width/height from Series "Zipper"
- If quick insertion of cables with preassembled connector is required
  - similar width/height from Series E-Z Chain

**Features & Benefits**

- ➊ Large pins and double stop dog for superior life and long unsupported length
- ➋ Mounting bracket with integrated strain relief
- ➌ Dirt repellent exterior
- ➍ One piece link design
- ➎ Stable design


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 11.080.038.0



e-chain®

1 Set 11.080.12PZ



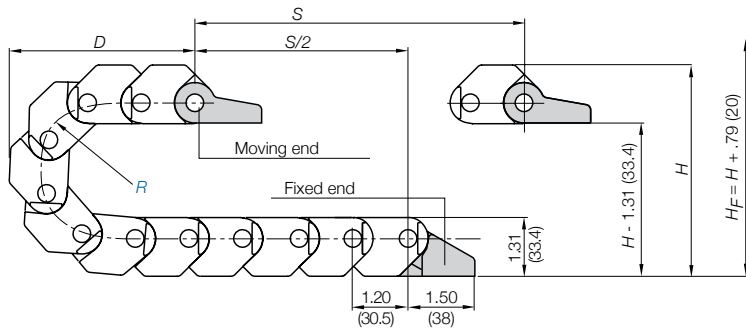
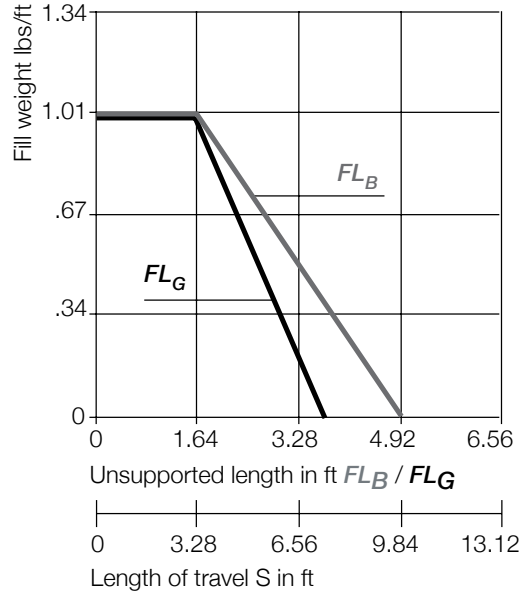
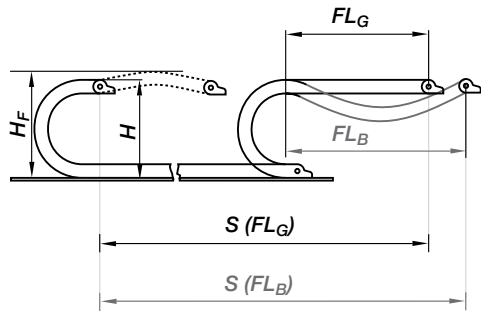
Mounting Bracket



# e-chain system® E2 Mini Series 11.080 Installation Dimensions

Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
Links per ft (m) = 10.06 (33)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .79$  in. (20 mm) (with .34 lbs/ft (0.5 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	1.50 (038)	2.56 (065)
H	4.69 (119)	6.81 (173)
D	4.13 (105)	5.20 (132)
K	7.28 (185)	10.63 (270)

## Short Travels - Unsupported

1.10



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data

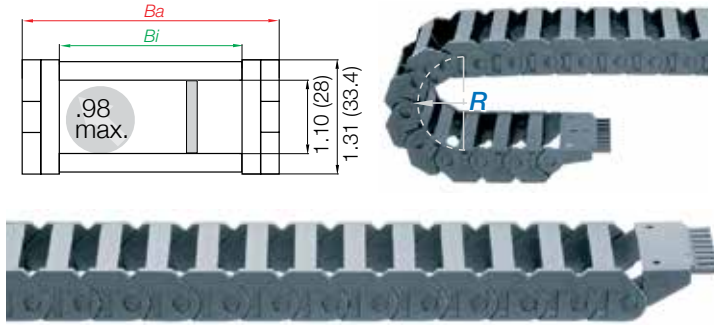


Details of material properties

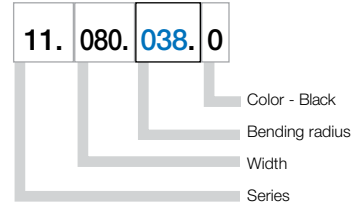
► Chapter 1

Series 11.080 - e-chain® non openable.  
With molded in vertical separation

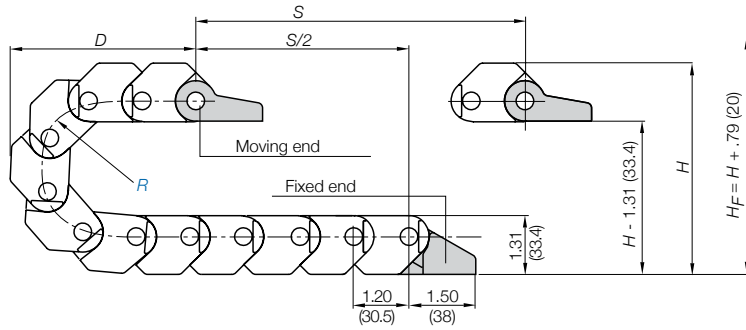
igus®  
e-chain system®



Part Number Structure



Telephone 1-800-521-2747



Supplement part number with required radius. Example: 11.080.**038**.0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number	Bi in. (mm)	Ba in. (mm)	Chamber Design	A in. (mm)	B in. (mm)	Weight lbs/ft (kg/m)
11.080. <input type="text"/> .0	3.15 (80)	3.66 (93)		1.81 (46)	1.26 (32)	≈ 0.49 (0.73)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: 11.080.**038**.0

	038	065
R	1.50 (38)	2.56 (65)
H	4.69 (119)	6.81 (173)
D	4.13 (105)	5.20 (132)
K	7.28 (185)	10.63 (270)

0=Standard color black. For other colors see Chapter 1

Internet: [igus.com](http://igus.com)  
email: [sales@igus.com](mailto:sales@igus.com)  
QuickSpec: [igus.com/quickspec](http://igus.com/quickspec)

# e-chain system® E2 Mini

## Series 11.080

### Mounting Brackets - plastic one piece - pivoting

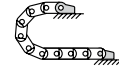
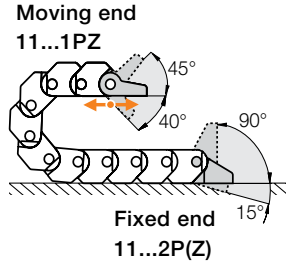


11.080

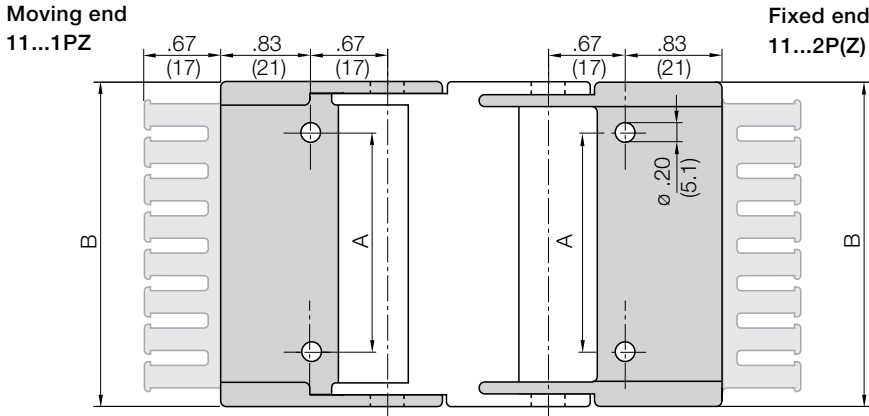
**Standard**

#### Option: pivoting

- Short and long travel
- Space-restricted conditions
- Corrosion resistant



Possible installation configurations -



#### Part Number Structure

11.	080.	12	PZ
-----	------	----	----

- With tiewrap plate
- Complete Set = 12
- Width
- Mounting brackets for selected chain type

Full set, for both ends:

**11.080.12.PZ** Full set, each part with pin/bore + tiewrap plate

Single-part order:

**11.080.1.PZ** Mounting bracket with bore + tiewrap plate

**11.080.2.PZ** Mounting bracket with pin + tiewrap plate

For Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)	Dimension B in. (mm)	Number of teeth
11.080	<b>11.080.12PZ</b>	<b>11.080.12P</b>	2.56 (65)	3.66 (93)	8

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Price Index



Series 11.1/11.2

Special Features / Options



ESD Classification:  
Electrically conductive ESD  
version upon request

Assembly Tips



Easy to assemble and disassemble

Usage Guidelines



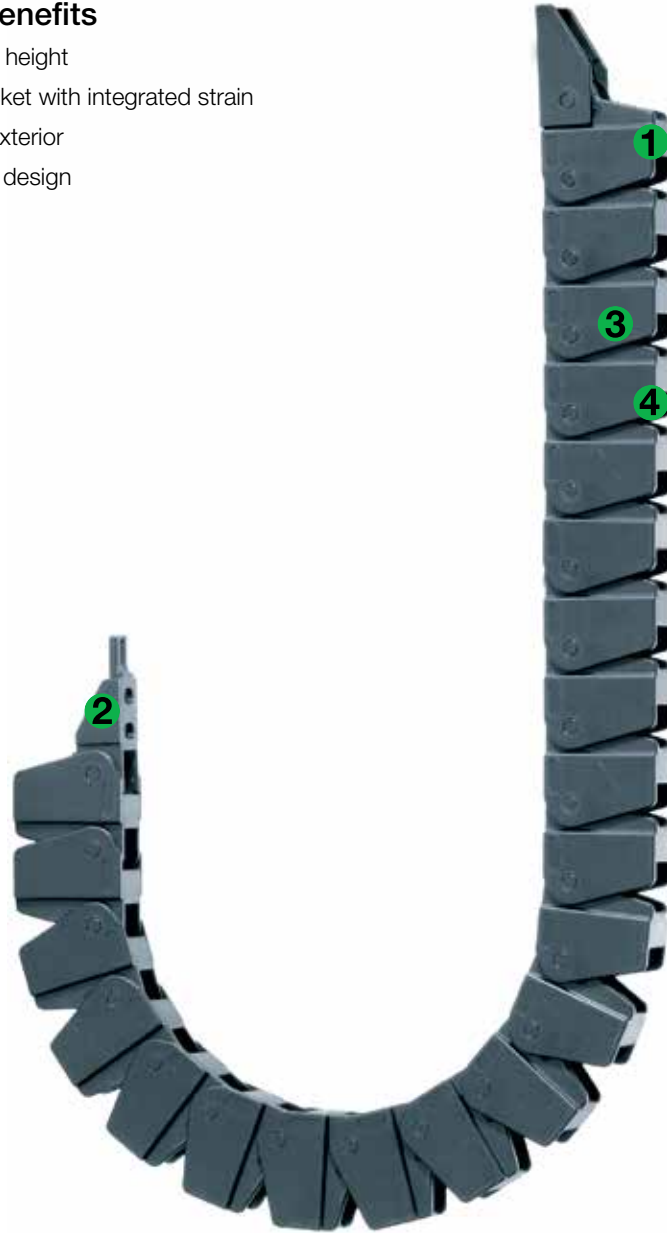
- If space is restricted
- If many cables are arranged vertically adjacent



- If snap-open links are required
  - similar width/height from Series "Zipper"
- If quick insertion of cables with preassembled connector is required
  - similar width/height from Series E-Z Chain

Features & Benefits

- 1 Enlarged inner height
- 2 Mounting bracket with integrated strain
- 3 Dirt repellent exterior
- 4 One piece link design



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 11.2.100.0



e-chain®

1 Set 102.12PZ

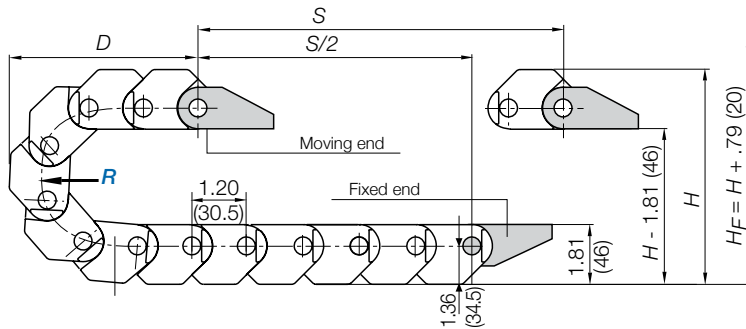
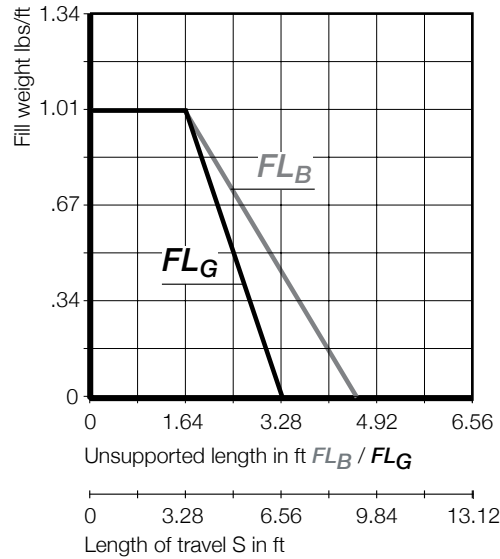
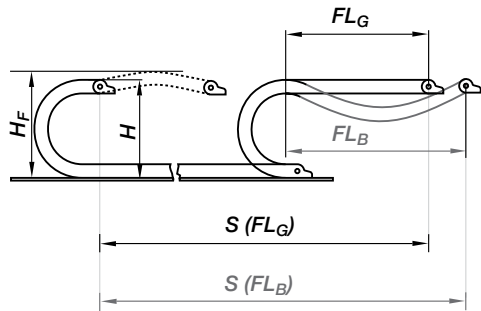


Mounting Bracket

# e-chain system® E2 Mini Series 11.1 / 11.2 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
Links per ft (m) = 10.06 (33)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .79$  in. (20 mm) (with .34 lbs/ft (0.5 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.57 (040)	2.48 (063)	2.95 (075)	3.94 (100)
H	5.87 (149)	7.68 (195)	8.62 (219)	10.59 (269)
D	4.72 (120)	5.63 (143)	6.10 (155)	7.09 (180)
K	7.48 (190)	10.24 (260)	11.81 (300)	14.96 (380)



11.2  
11.2

## Short Travels - Unsupported

1.61



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data



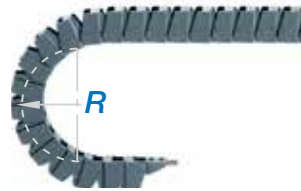
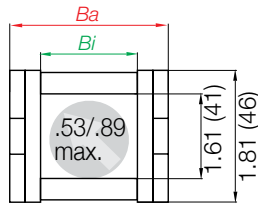
Details of material properties

► Chapter 1

4.72

Series 11.1/11.2 - e-chain® one-piece, non-openable

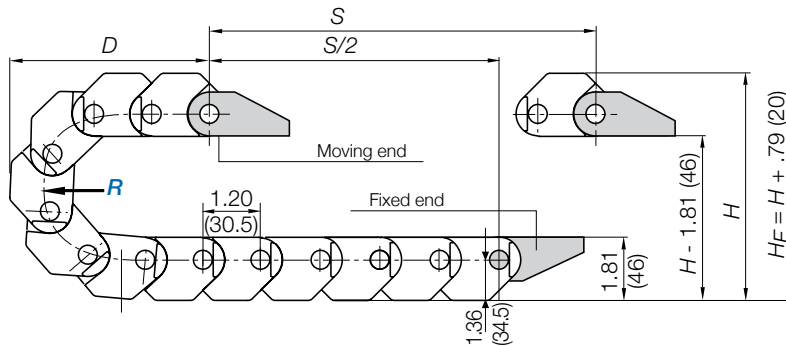
igus®  
e-chain system®



Part Number Structure



- Color - Black
- Bending radius
- Width
- Series



Supplement part number with required radius. Example: 11.1.  .0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
11.1. <input type="text" value=""/> .0	.59 (15)	1.00 (25.5)	≈ 0.33 (0.50)
11.2. <input type="text" value=""/> .0	.98 (25)	1.40 (35.5)	≈ 0.35 (0.53)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: 11.1.  .0

	040	063	075	100
R	1.57 (040)	2.48 (063)	2.95 (075)	3.94 (100)
H	5.87 (149)	7.68 (195)	8.62 (219)	10.59 (269)
D	4.72 (120)	5.63 (143)	6.10 (155)	7.09 (180)
K	7.48 (190)	10.24 (260)	11.81 (300)	14.96 (380)

0=Standard color black. For other colors see Chapter 1

Telephone 1-800-521-2747

Internet: [igus.com](http://igus.com)  
email: [sales@igus.com](mailto:sales@igus.com)  
QuickSpec: [igus.com/quickspec](http://igus.com/quickspec)

# e-chain system® E2 Mini

## Series 11.1 / 11.2

### Mounting Brackets - plastic one piece - locking



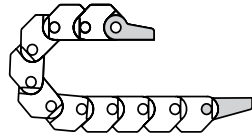
11.2  
11.2

Standard

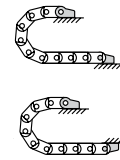
#### Option: locking

- Short and long travel
- Space-restricted conditions
- Corrosion resistant

Moving end  
10...1PZ



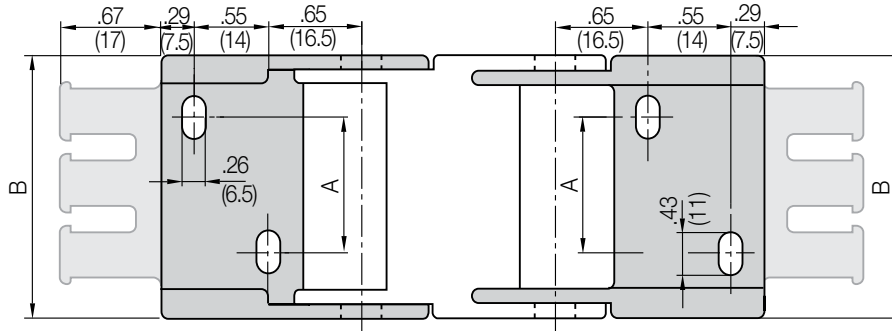
Fixed end  
10...2P(Z)



Possible installation configurations -

Moving end  
10...1PZ

Fixed end  
10...2P(Z)



#### Part Number Structure

101. 12 PZ

- With tiewrap plate
- Complete Set = 12
- Mounting brackets for selected chain type

Full set, for both ends:

**101.12.PZ** Full set, each part with pin/bore + tiewrap plate

Single-part order:

**101.1.PZ** Mounting bracket with bore + tiewrap plate

**101.2.PZ** Mounting bracket with pin + tiewrap plate

For Chain Type	Part No.	Part No.	Dimension A		Dimensions B		Number of teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	in.	(mm)	
11.1	101.12PZ	101.12P	-	-	1.02	(26)	2
11.2	102.12PZ	102.12P	.39	(10)	1.42	(36)	3

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



**Price Index**


Series 14

**Special Features / Options**


Cleanroom Class 1 (ISO class 3)

ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request

UL94-V2 Classifications

**Assembly Tips**


Easy to assemble and disassemble

**Usage Guidelines**


- For applications with low loads
- Fast installation of the cables



- For gliding applications
  - **Series 15 Zipper**
- For long unsupported lengths
  - **Series 15 Zipper**

**Features & Benefits**

- 1 Flammability class UL 94
- 2 Mounting bracket with integrated strain relief
- 3 Dirt-repellent exterior
- 4 Snap-open along inner radius with film-hinge


**Order Example: Complete e-chain®**

Please indicate chain length or number of links. Example:

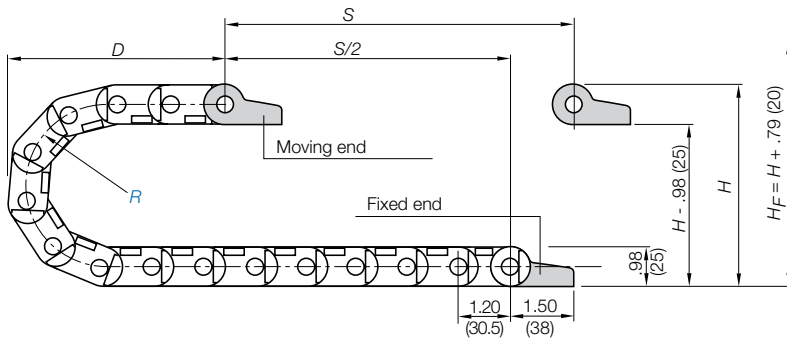
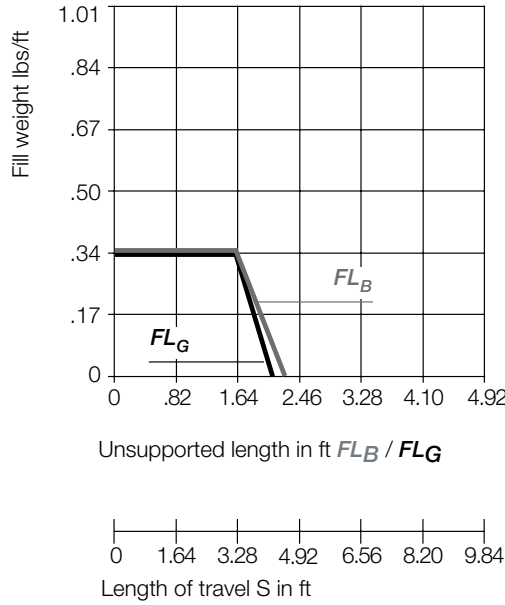
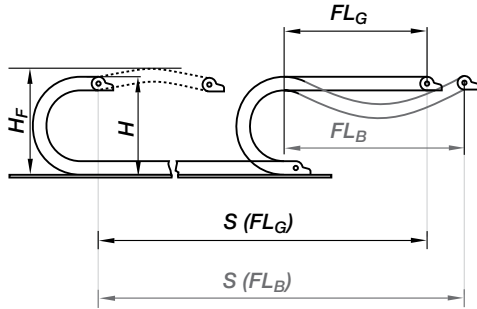
3.28 ft (1 m) **14-2-038-0****e-chain®**1 Set **114-2-12PZ****Mounting Bracket**



# e-chain system® E2 Mini Series 14 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



The required clearance height:  $H_F = H + .79$  in. (20 mm) (with 0.34 lbs/ft (0.5 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)
H	3.19 (81)	3.98 (101)	4.76 (121)	6.89 (175)	8.86 (225)	10.83 (275)
D	3.39 (86)	3.78 (96)	4.17 (106)	5.24 (133)	6.22 (158)	7.20 (183)
K	6.02 (150)	7.42 (185)	8.61 (215)	11.81 (300)	14.96 (380)	17.91 (455)

### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



Speed / acceleration $FL_G$	max. 6.56 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid NB	VDE 0304 IIC UL94 V2

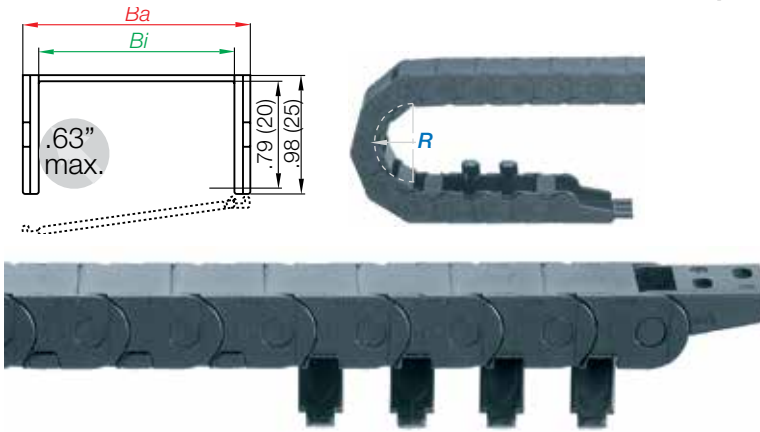
### Technical Data



Details of material properties

► Chapter 1

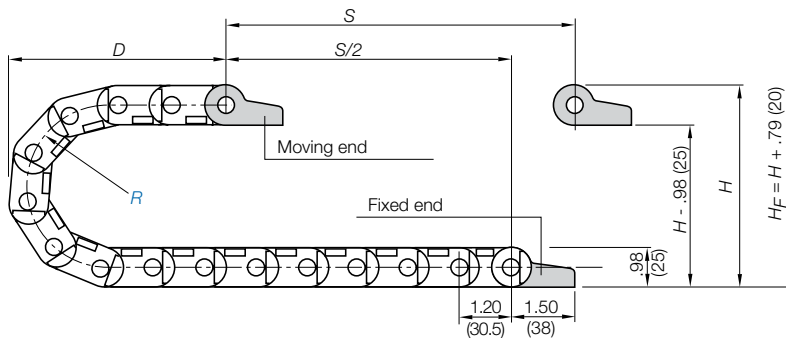
Series 14 - e-chain® snap-open along the inner radius



Part Number Structure



- Color - Black
- Bending radius
- Width
- Series



Supplement part number with required radius. Example: 14-2-**038**-0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
14-1- <input type="text"/> -0	.59 (15)	1.02 (26)	≈ 0.21 (0.31)
14-2- <input type="text"/> -0	.98 (25)	1.42 (36)	≈ 0.22 (0.32)
14-3- <input type="text"/> -0	1.50 (38)	1.93 (49)	≈ 0.27 (0.40)
14-4- <input type="text"/> -0	1.97 (50)	2.40 (61)	≈ 0.28 (0.41)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 14-2-**038**-0

	<b>028</b>	<b>038</b>	<b>048</b>	<b>075</b>	<b>100</b>	<b>125</b>
<b>R</b>	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)
<b>H</b>	3.19 (81)	3.98 (101)	4.76 (121)	6.89 (175)	8.86 (225)	10.83 (275)
<b>D</b>	3.39 (86)	3.78 (96)	4.17 (106)	5.24 (133)	6.22 (158)	7.20 (183)
<b>K</b>	6.02 (150)	7.42 (185)	8.61 (215)	11.81 (300)	14.96 (380)	17.91 (455)

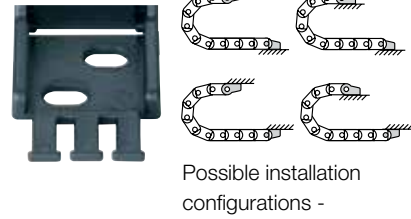
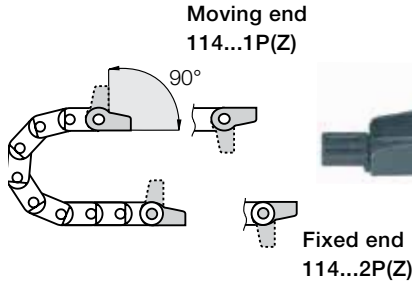
0=Standard color black. For other colors see Chapter 1

# e-chain system® E2 Mini Series 14 Mounting Brackets



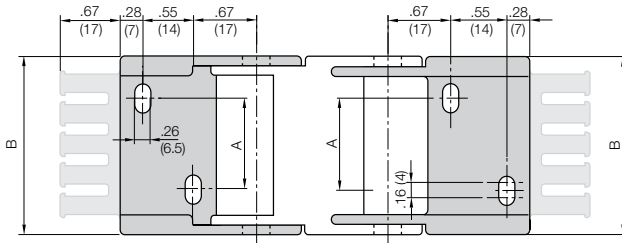
## Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates

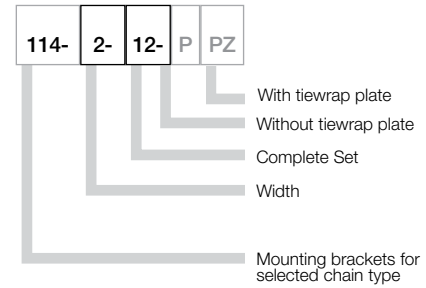


Moving end  
114...1P(Z)

Fixed end  
114...2P(Z)



### Part Number Structure



For Chain Type	Part No.		Dimension A		Dimensions B	
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	in.	(mm)
14.1	114-1-12-PZ	114-1-12-P	—	—	1.04	(26.3)
14.2	114-2-12-PZ	114-2-12-P	.39	(10)	1.43	(36.3)
14.3	114-3-12-PZ	114-3-12-P	.91	(23)	1.94	(49.3)
14.4	114-4-12-PZ	114-4-12-P	1.38	(35)	2.41	(61.3)

Full set, for both ends:

114- 2- 12- PZ Full set, each part with pin/bore + tiewrap plate

Single-part order:

114- 2- 1- PZ Mounting bracket with bore + tiewrap plate

114- 2- 2- PZ Mounting bracket with pin + tiewrap plate

## Additional Accessories



**Quickfix** - mounting bracket with dowel, upon request

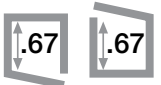
Part No.  
114-3-12QZ



B15  
B15i



# e-chain system® E2 Mini Series B15 / B15i



### Price Index



Series B15 / B15i

### Special Features / Options



ESD Classification:  
Electrically conductive ESD/  
ATEX version upon request



Flammability Class  
VDE 0304 IIC UL94 HB

### Assembly Tips



Easy to assemble and disassemble

### Usage Guidelines



- If snap-open accessibility is required
- If a small but very stable chain is required



- If snap-open accessibility is not required  
➤ **Series 10 E2 Mini**
- If quick insertion of cables is needed  
➤ **Series E14 E-Z Chain**

### Features & Benefits

- 1 Large pins and double stop dog for superior life and long unsupported length
- 2 Mounting bracket with integrated strain relief
- 3 Can be opened along the outer radius (Series B15) or along the inner radius (Series B15i), these Series can be combined
- 4 Interior separation available
- 5 Dirt repellent exterior



### Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **B15-025-038-0**

e-chain®

With 2 separators **154** assembled every 2nd link

Interior Separation

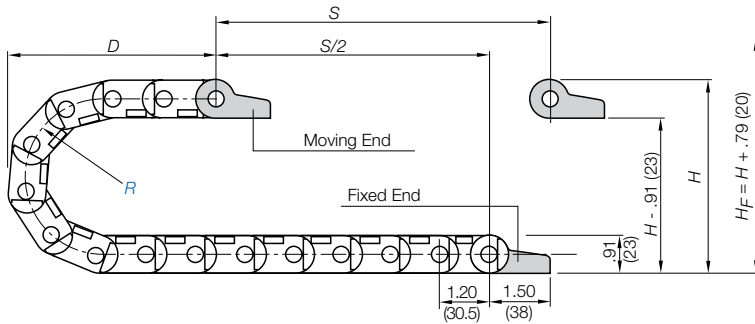
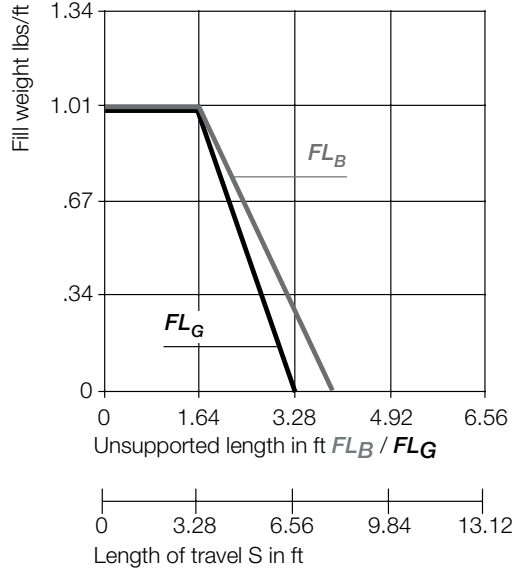
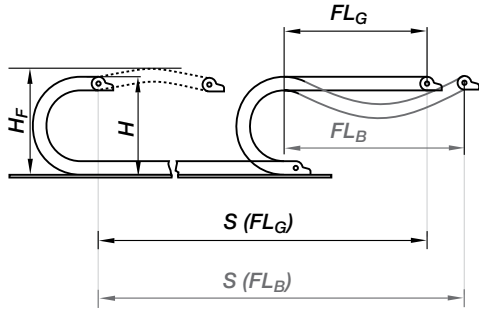
1 Set **1025-12PZ**

Mounting Bracket

# e-chain system® E2 Mini Series B15 / B15i Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
 Links per ft (m) = 10.06 (33)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .79$  in. (20 mm) (with 1.01 lbs/ft (0.5 kg/m) fill weight).  
 Please consult igus® if space is particularly restricted.

R	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
D	3.74 (95)	4.13 (105)	5.20 (132)	6.18 (157)	6.57 (167)	7.17 (182)	7.95 (202)	9.33 (237)
K	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB



B15  
B15i

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
 Product information: [igus.com/e-chains](https://igus.com/e-chains)



## Technical Data

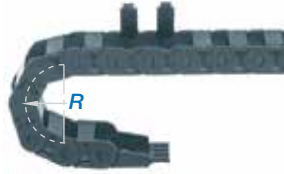
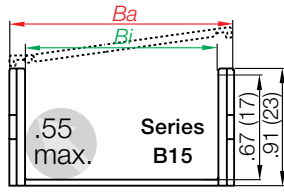


Details of material properties

► Chapter 1

STANDARD

Series B15 - Snap-open along the outer radius - Standard

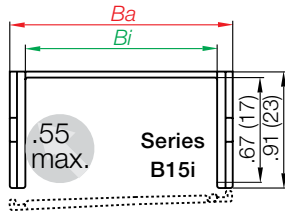


Part Number Structure



Color - Black  
Bending radius  
Width  
Series

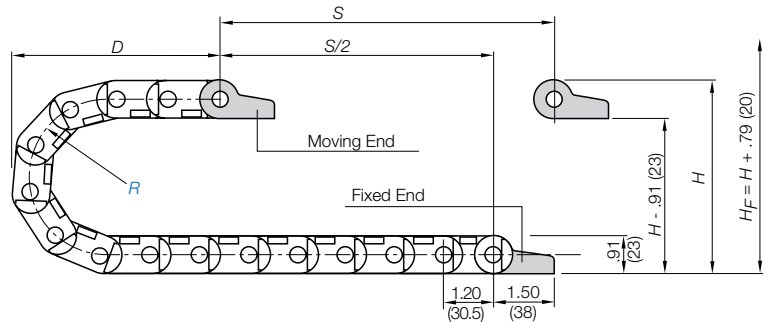
Series B15i - Snap-open along the inner radius



Part Number Structure



Color - Black  
Bending radius  
Width  
Series



Supplement part number with required radius. Example: B15-025--0

Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number

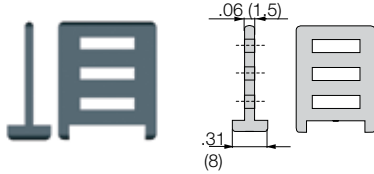
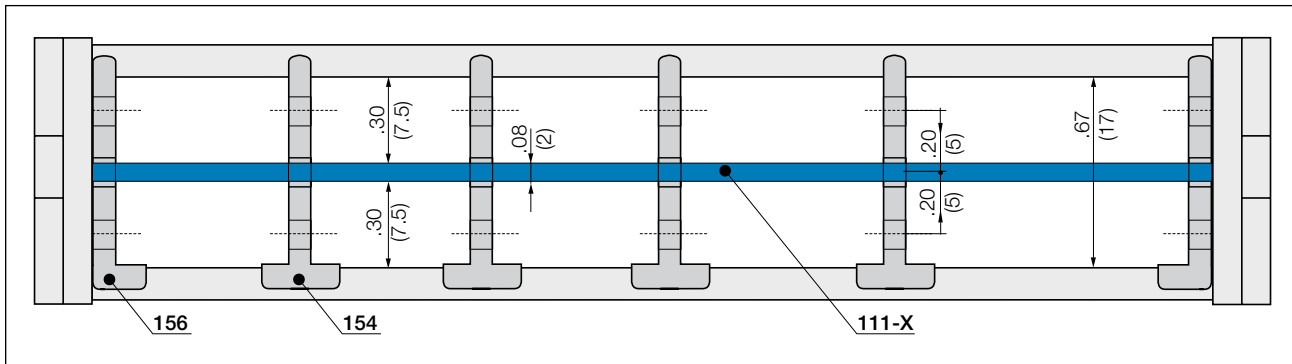
Snap-open outer radius	Snap-open inner radius		<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
B15-015-	B15i-015-	<input type="text" value="0"/> -0	.59 (15)	1.02 (26)	≈ 0.24 (0.35)
B15-025-	B15i-025-	<input type="text" value="0"/> -0	.98 (25)	1.42 (36)	≈ 0.27 (0.40)
B15-038-	B15i-038-	<input type="text" value="0"/> -0	1.50 (38)	1.93 (49)	≈ 0.31 (0.46)
B15-050-	B15i-050-	<input type="text" value="0"/> -0	1.97 (50)	2.40 (61)	≈ 0.35 (0.52)
B15-5-	B15i-5-	<input type="text" value="0"/> -0	2.48 (63)	2.99 (76)	≈ 0.42 (0.63)
B15-6-	B15i-6-	<input type="text" value="0"/> -0	3.15 (80)	3.70 (94)	≈ 0.47 (0.70)
B15-7-	B15i-7-	<input type="text" value="0"/> -0	3.94 (100)	4.45 (113)	≈ 0.51 (0.76)

Choose from the radii below for all of the above sizes

Radius (mm) Example: B15-025--0

	<input type="text" value="038"/>	<input type="text" value="048"/>	<input type="text" value="075"/>	<input type="text" value="100"/>	<input type="text" value="110"/>	<input type="text" value="125"/>	<input type="text" value="145"/>	<input type="text" value="180"/>
R	1.50 (38)	1.89 (48)	2.95 (75)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
D	3.74 (95)	4.13 (105)	5.20 (132)	6.18 (157)	6.57 (167)	7.17 (182)	7.95 (202)	9.33 (237)
K	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

0=Standard color black. For other colors see Chapter 1

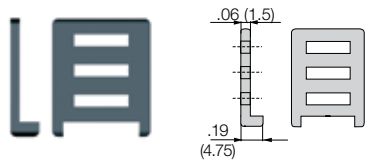


**Slotted separator for e-chains®**

Unassembled	<b>Part No. 153</b>
Assembled	<b>Part No. 154</b>

● **Slotted separator 153**

is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

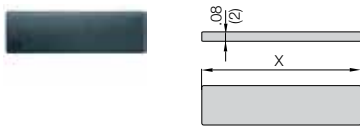


**Side plate for e-chains®**

Unassembled	<b>Part No. 155</b>
Assembled	<b>Part No. 156</b>

● **Side plate 155**

Side plate for use with full-width shelf 110-X and slotted separator 153



**Full width shelf for e-chains®**

Unassembled	<b>Part No. 110-X</b>
Assembled	<b>Part No. 111-X</b>

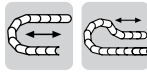
● **Full width shelf 110-X**

this option makes sense in applications with many thin cables with similar diameters. Full width shelves can be arranged at 3 different heights in .20" (5 mm) increments.

Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.59 (015)	<b>110-15</b>	<b>111-15</b>
.98 (025)	<b>110-25</b>	<b>111-25</b>
1.50 (038)	<b>110-38</b>	<b>111-38</b>
1.97 (050)	<b>110-50</b>	<b>111-50</b>

Width X in. (mm)	Part No. Unassembled	Part No. Assembled
2.48 (063)	<b>110-63</b>	<b>111-63</b>
3.15 (080)	<b>110-80</b>	<b>111-80</b>
3.94 (100)	<b>110-100</b>	<b>111-100</b>

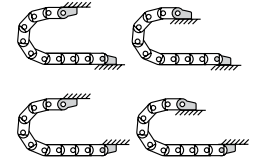
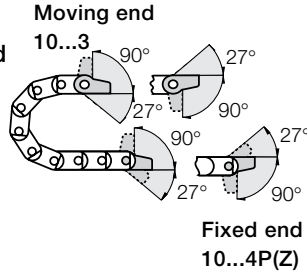




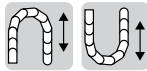
Standard

**Option 1: pivoting**

- Short and long travel
- Space-restricted conditions
- Corrosion resistant

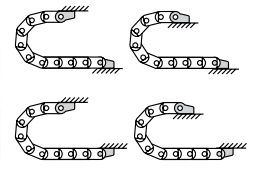
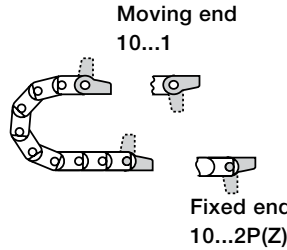


Possible installation configurations -



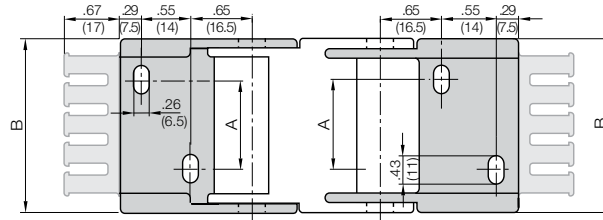
**Option 2: locking**

- Vertical hanging/standing travels
- Extreme accelerations
- Corrosion resistant

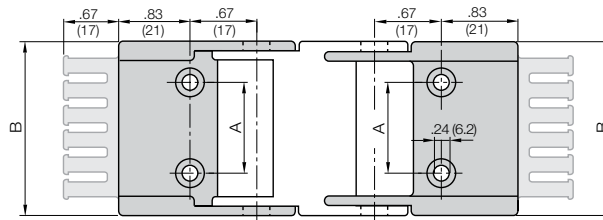


Possible installation configurations -

For e-chain  
B15/B15i-015 to  
B15/B15i-050



For e-chain  
B15/B15i-5 to  
B15/B15i-7



**Part Number Structure**



- With tie-wrap plate
- Without tie-wrap plate
- Complete Set  
12 = Locking  
34 = Pivoting
- Mounting brackets for selected chain type

Part number examples are shown for pivoting brackets. For locking brackets fill in the blank with **12**

Part No. Full Set (pivoting)  
with Tiewrap Plate  
Series B15/B15i with 25mm inner width  
1025-34PZ

Part No. Full Set (pivoting)  
without Tiewrap Plate  
Series B15/B15i with 25 mm inner width  
1025-34P

Full set, for both ends:  
1025- 34- PZ Full set, each part  
with pin/bore + tie-wrap plate  
Single-part order:  
1025- 3- PZ Mounting bracket with bore  
+ tie-wrap plate  
1025- 4- PZ Mounting bracket with pin  
+ tie-wrap plate

For Chain Type	Part No.		Dimension A		Dimensions B	
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	in.	(mm)
B15/B15i-015	1015- <input type="checkbox"/> PZ	1015- <input type="checkbox"/> P	—	—	1.00	(25.5)
B15/B15i-025	1025- <input type="checkbox"/> PZ	1025- <input type="checkbox"/> P	.39	(10)	1.40	(35.5)
B15/B15i-038	1038- <input type="checkbox"/> PZ	1038- <input type="checkbox"/> P	.91	(23)	1.91	(48.5)
B15/B15i-050	1050- <input type="checkbox"/> PZ	1050- <input type="checkbox"/> P	1.38	(35)	2.38	(60.5)
B15/B15i-5	105- <input type="checkbox"/> PZ	105- <input type="checkbox"/> P	1.89	(48)	2.95	(75.0)
B15/B15i-6	106- <input type="checkbox"/> PZ	106- <input type="checkbox"/> P	2.56	(65)	3.62	(92.0)
B15/B15i-7	107- <input type="checkbox"/> PZ	107- <input type="checkbox"/> P	3.35	(85)	4.41	(112.0)

For pivoting brackets choose **34**  
For locking brackets choose **12**  
Example: 1025-  PZ

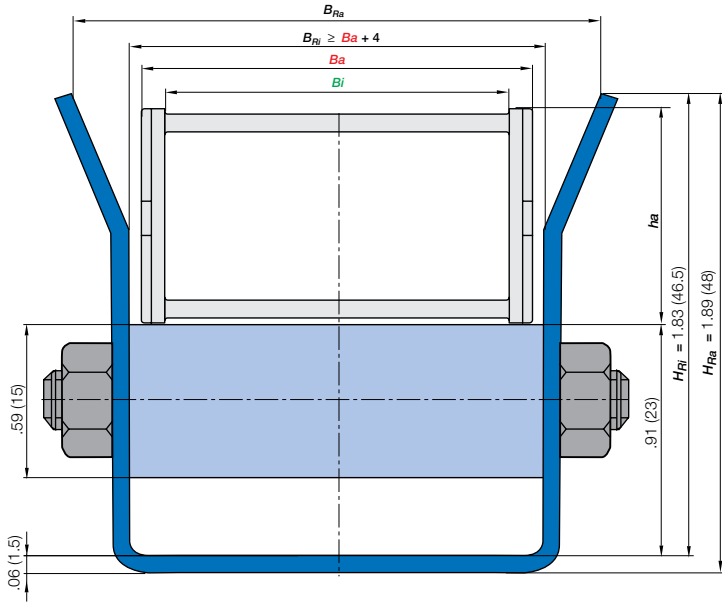


# e-chain system® E2 Mini Series B15 / B15i Guide Trough



B15  
B15i

One-piece guide troughs made of steel are available for the Series B15 Energy Chains®. These guide troughs are available from stock for outer chain widths up to 4.45 in. (113 mm). For wider e-chains® and Tubes, special solutions are possible with short lead times. No installation sets are required for these trough sizes since the guide troughs consist of a one-piece U-profile. The joint connection with this type of guide trough is specified individually for every application.



## Dimensions Guide troughs 91-10 – 91-71

For Series	Part No.	BRa in. (mm)	BRi in. (mm)	Weight lbs/ft (kg/m)
<b>B15-015</b>				
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-10</b>	1.59 (40.5)	1.18 (30)	1.01 (1.50)
Glide bar 6.56 ft. (2m section)	<b>91-11</b>	1.59 (40.5)	1.18 (30)	.30 (.45)
<b>B15-025</b>				
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-20</b>	1.99 (50.5)	1.57 (40)	1.11 (1.65)
Glide bar 6.56 ft. (2m section)	<b>91-21</b>	1.99 (50.5)	1.57 (40)	.38 (.57)
<b>B15-038</b>				
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-30</b>	2.46 (62.5)	2.05 (52)	1.21 (1.80)
Glide bar 6.56 ft. (2m section)	<b>91-31</b>	2.46 (62.5)	2.05 (52)	.46 (.68)
<b>B15-050</b>				
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-40</b>	2.85 (72.5)	2.44 (62)	1.28 (1.90)
Glide bar 6.56 ft. (2m section)	<b>91-41</b>	2.85 (72.5)	2.44 (62)	.61 (.91)
<b>B15-5</b>				
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-50</b>	3.60 (91.5)	3.19 (81)	1.52 (2.26)
Glide bar 6.56 ft. (2m section)	<b>91-51</b>	3.60 (91.5)	3.19 (81)	.84 (1.25)
<b>B15-6</b>				
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-60</b>	4.27 (108.5)	3.86 (98)	1.83 (2.72)
Glide bar 6.56 ft. (2m section)	<b>91-61</b>	4.27 (108.5)	3.86 (98)	.91 (1.35)
<b>B15-7</b>				
Trough <b>without</b> glide bar 6.56 ft. (2m section)	<b>91-70</b>	5.06 (128.5)	4.65 (118)	2.13 (3.17)
Glide bar 6.56 ft. (2m section)	<b>91-71</b>	5.06 (128.5)	4.65 (118)	1.14 (1.70)

Trough material in general: St 1203 galvanized

PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Price Index



Series B17

Special Features / Options



Special Equipment:  
Electrically conductive ESD/  
ATEX version upon request



Flammability Class  
VDE 0304 IIC UL94 HB

Assembly Tips



Easy to assemble and disassemble

Usage Guidelines



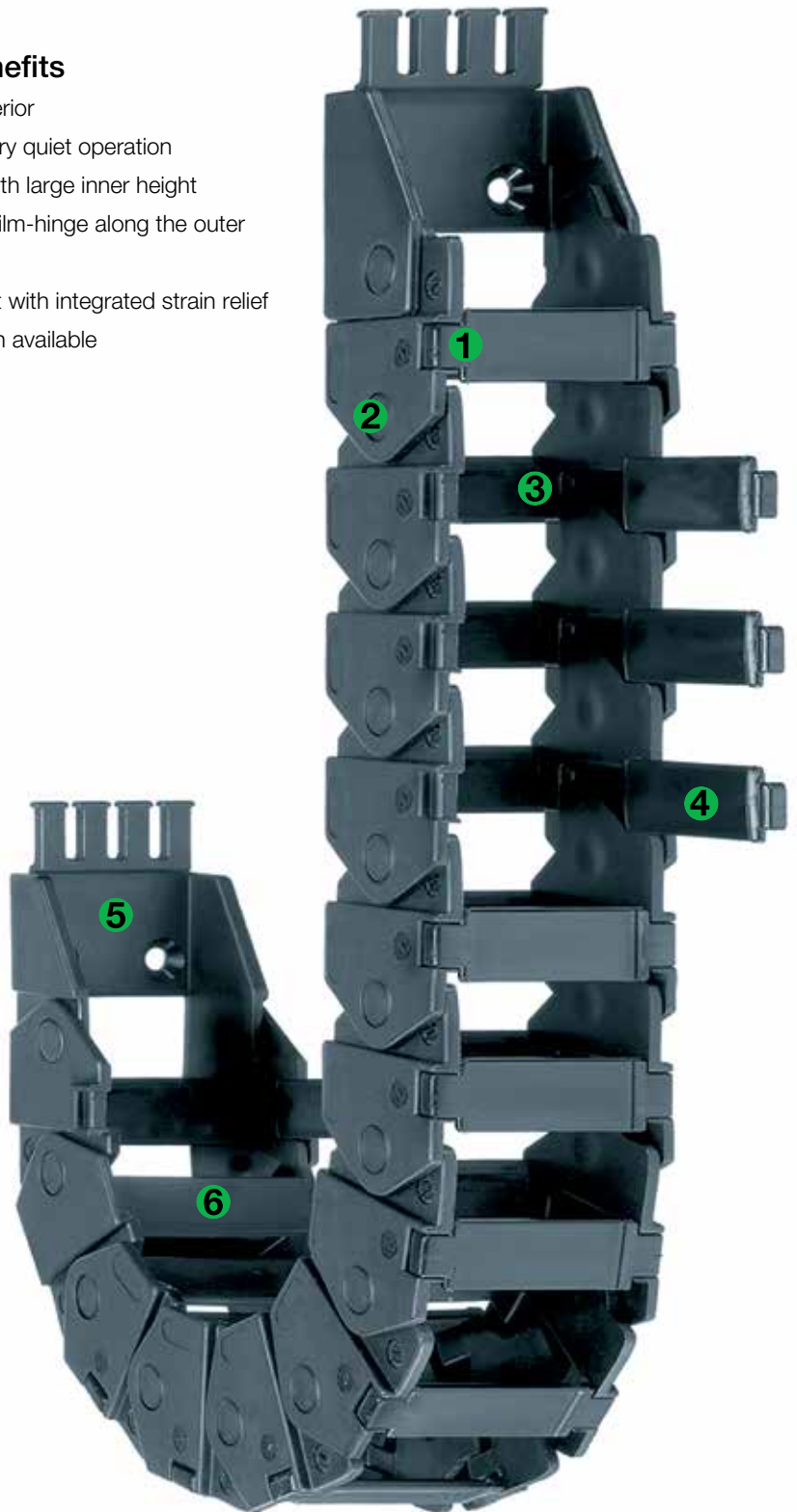
- If snap-open accessibility is required
- If a rather small chain with a broad inner width is required



- If quick opening of the links is required  
➤ **Series 17 Zipper**
- If quick insertion of cables with preassembled connectors is required  
➤ **Series E16 E-Z Chain**

Features & Benefits

- 1 Dirt-repellent exterior
  - 2 Small pitch for very quiet operation
  - 3 Small e-chain® with large inner height
  - 4 Snap-open with film-hinge along the outer radius
  - 5 Mounting bracket with integrated strain relief
- Interior separation available



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **B17-1-063-0**

e-chain®

With 2 separators **172** assembled every 2nd link

Interior Separation

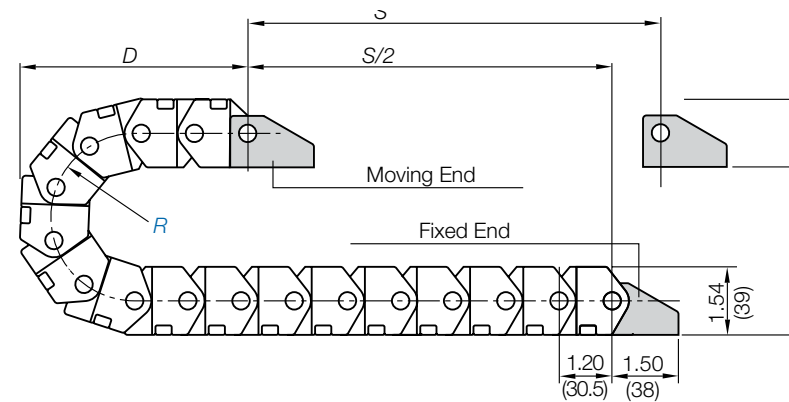
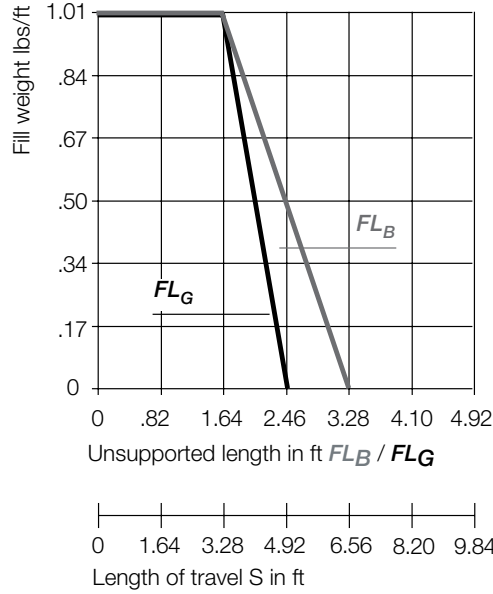
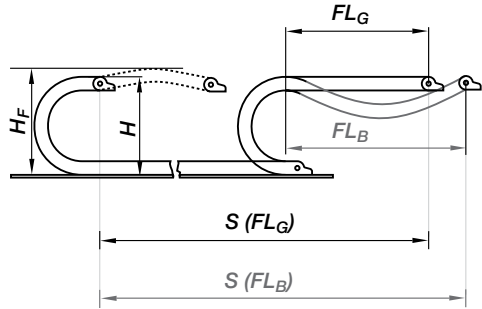
1 Set **117-1-12PZ**

Mounting Bracket

# e-chain system® E2 Mini Series B17/B17i Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
Links per ft (m) = 10.06 (33)  
For center mount applications:  
Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + .98$  in. (25 mm) (with 1.01 lbs/ft (1.5 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	1.89 (048)	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)
H	5.31 (135)	6.50 (165)	7.44 (189)	9.41 (239)	11.38 (289)
D	4.45 (113)	5.04 (128)	5.51 (140)	6.50 (165)	7.48 (190)
K	8.46 (215)	10.24 (260)	11.81 (300)	14.96 (380)	17.91 (455)



B17  
B17i

## Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

## Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

## Technical Data

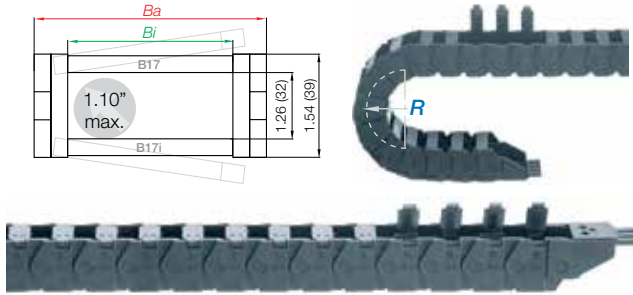


Details of material properties

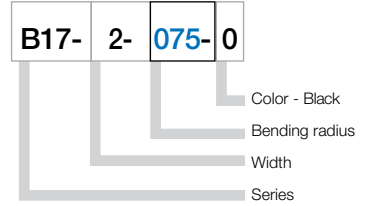
► Chapter 1

**STANDARD**

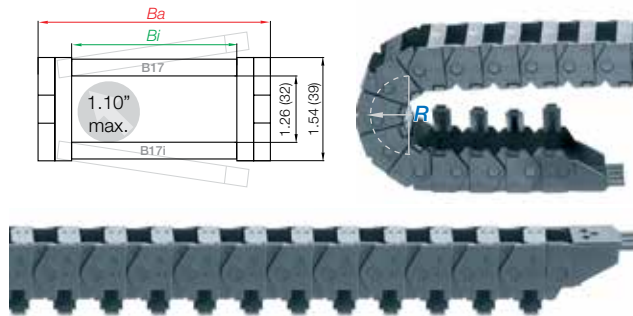
**Series B17 - Snap-open along the outer radius - Standard**



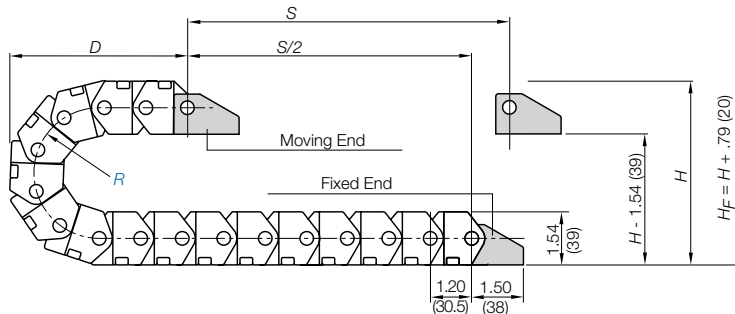
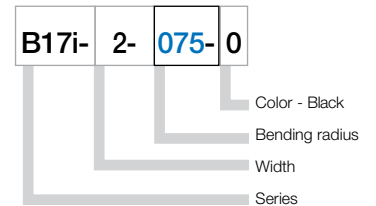
**Part Number Structure**



**Series B17i - Snap-open along the inner radius**



**Part Number Structure**



Supplement part number with required radius. Example: B17-2--0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

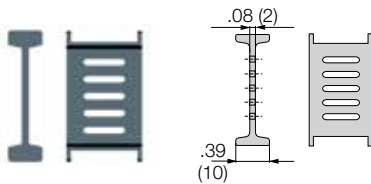
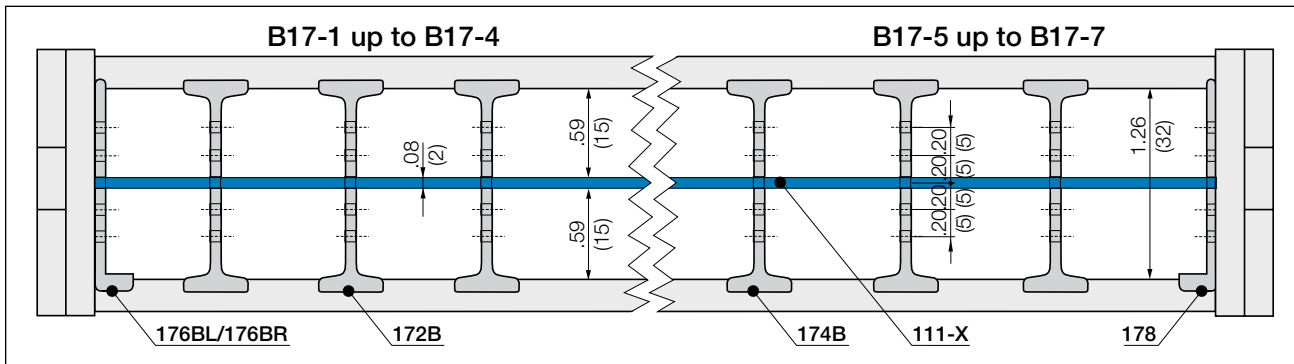
Part number Snap-open along outer radius	Part number Snap-open along inner radius		<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
B17-1-	—	<input type="text" value="075"/>	.59 (15)	1.00 (25.5)	≈ 0.35 (0.52)
B17-2-	B17i-2-	<input type="text" value="075"/>	.98 (25)	1.40 (35.5)	≈ 0.40 (0.59)
B17-3-	B17i-3-	<input type="text" value="075"/>	1.50 (38)	1.91 (48.5)	≈ 0.44 (0.65)
B17-4-	B17i-4-	<input type="text" value="075"/>	1.97 (50)	2.38 (60.5)	≈ 0.47 (0.70)
B17-5-	—	<input type="text" value="075"/>	2.48 (63)	2.99 (76)	≈ 0.56 (0.83)
B17-6-	—	<input type="text" value="075"/>	3.15 (80)	3.66 (93)	≈ 0.62 (0.92)
B17-7-	—	<input type="text" value="075"/>	3.94 (100)	4.45 (113)	≈ 0.71 (1.06)

Choose from the radii below for all of the above sizes  
*Radius* (mm) Example: B17-2--0

	<input type="text" value="048**"/>	<input type="text" value="063*"/>	<input type="text" value="075"/>	<input type="text" value="100*"/>	<input type="text" value="125*"/>
R	1.89 (048)	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)
H	5.31 (135)	6.50 (165)	7.44 (189)	9.41 (239)	11.38 (289)
D	4.45 (113)	5.04 (128)	5.51 (140)	6.50 (165)	7.48 (190)
K	8.46 (215)	10.24 (260)	11.81 (300)	14.96 (380)	17.91 (455)

\* Radii 063, 100, 125 not available for the B17i-3  
\*\* Radius 048 is not available for the B17-5 or B17-7

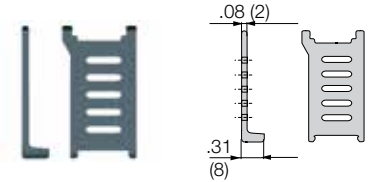
0=Standard color black. For other colors see Chapter 1



**Slotted separator for B17-1 up to B17-4**

Unassembled	<b>Part No. 171B</b>
Assembled	<b>Part No. 172B</b>

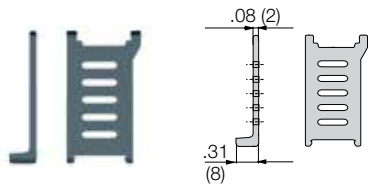
- **Slotted separator 171B**  
(B17-1 up to B17-4)  
is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.



**Side plate (left) for B17-1 up to B17-4**

Unassembled	<b>Part No. 175BL</b>
Assembled	<b>Part No. 176BL</b>

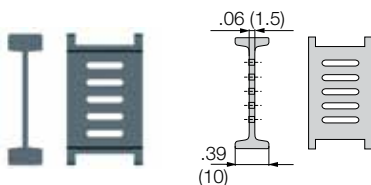
- **Side plate 175BL**  
(B17-1 up to B17-4)  
Side plate (left) for use with full-width shelf 110-X and slotted separator 171B



**Side plate (right) for B17-1 up to B17-4**

Unassembled	<b>Part No. 175BR</b>
Assembled	<b>Part No. 176BR</b>

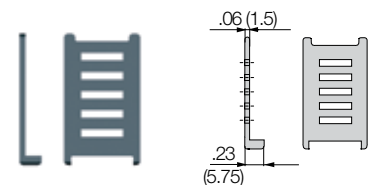
- **Side plate 175BR**  
(B17-1 up to B17-4)  
Side plate (right) for use with full-width shelf 110-X and slotted separator 171B



**Slotted separator for B17-5 up to B17-7**

Unassembled	<b>Part No. 173B</b>
Assembled	<b>Part No. 174B</b>

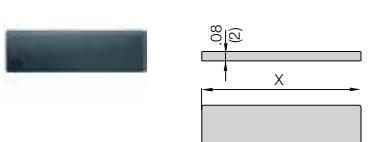
- **Slotted separator 173B**  
(B17-5 up to B17-7)  
is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.



**Side plate for B17-5 up to B17-7**

Unassembled	<b>Part No. 177</b>
Assembled	<b>Part No. 178</b>

- **Side plate 177**  
(B17-5 up to B17-7)  
Side plate for use with full-width shelf 110-X and slotted separator 173B



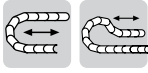
**Full width shelf, for all widths**

Unassembled	<b>Part No. 110-X</b>
Assembled	<b>Part No. 111-X</b>

- **Full width shelf 110-X**  
this option makes sense in applications with many thin cables with similar diameters. Full width shelves can be arranged at 5 different heights in .20" (5 mm) increments.

Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.59 (015)	<b>110-15</b>	<b>111-15</b>	2.48 (063)	<b>110-63</b>	<b>111-63</b>
.98 (025)	<b>110-25</b>	<b>111-25</b>	3.15 (080)	<b>110-80</b>	<b>111-80</b>
1.50 (038)	<b>110-38</b>	<b>111-38</b>	3.94 (100)	<b>110-100</b>	<b>111-100</b>
1.97 (050)	<b>110-50</b>	<b>111-50</b>			



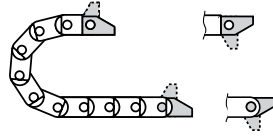


Standard

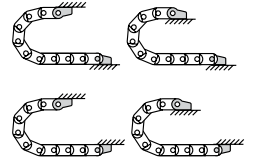
Option: locking

- One-piece mounting bracket
- Corrosion resistant
- Available pre-assembled
- Inner and outer attachment possible
- With or without strain relief tiewrap plates

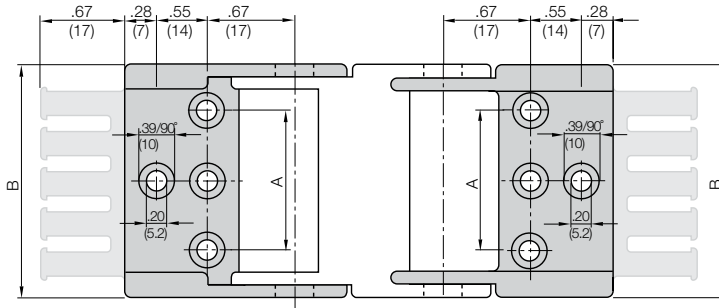
Moving end with bore  
117...1P(Z)



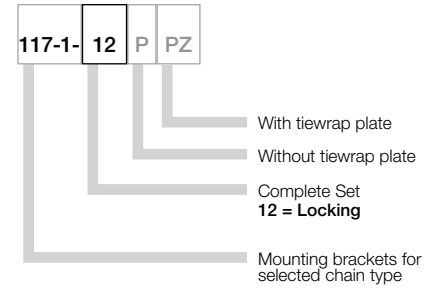
Fixed end with pin  
117...2P(Z)



Possible installation configurations -



Part Number Structure



Full set, for both ends:

117-1-12-PZ Full set, each part with pin/bore + tiewrap plate

Single-part order:

117-1-1-PZ Mounting bracket with bore + tiewrap plate

117-1-2-PZ Mounting bracket with pin + tiewrap plate

For Chain Type	Part No.		Number of Teeth	Dimension A		Dimensions B	
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate		in.	(mm)	in.	(mm)
B17-1	117-1-12PZ	117-1-12P	2	—	—	1.00	(25.5)
B17/B17i-2	117-2-12PZ	117-2-12P	3	.47	(12)	1.40	(35.5)
B17/B17i-3	117-3-12PZ	117-3-12P	4	.98	(25)	1.91	(48.5)
B17/B17i-4	117-4-12PZ	117-4-12P	5	1.46	(37)	2.38	(60.5)
B17-5	117-5-12PZ	117-5-12P	6	1.89	(48)	2.99	(76.0)
B17-6	117-6-12PZ	117-6-12P	8	2.56	(65)	3.66	(93.0)
B17-7	117-7-12PZ	117-7-12P	10	3.35	(85)	4.45	(113.0)

117-1-P(Z): Center bores only

117-2-12P(Z) - 117-7-P(Z): Outer bores only

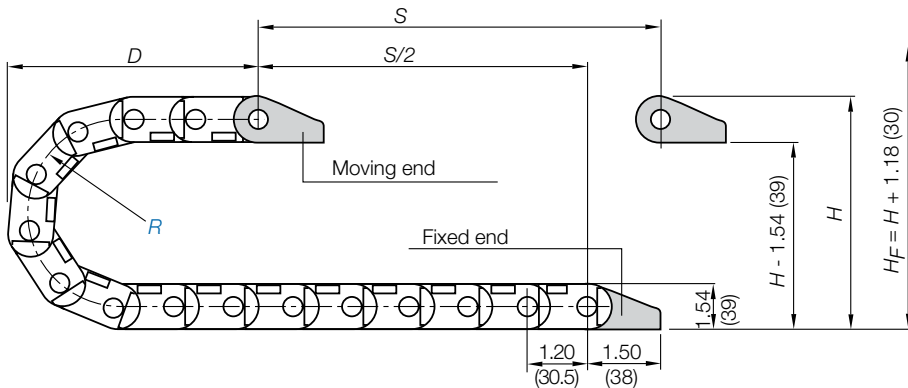
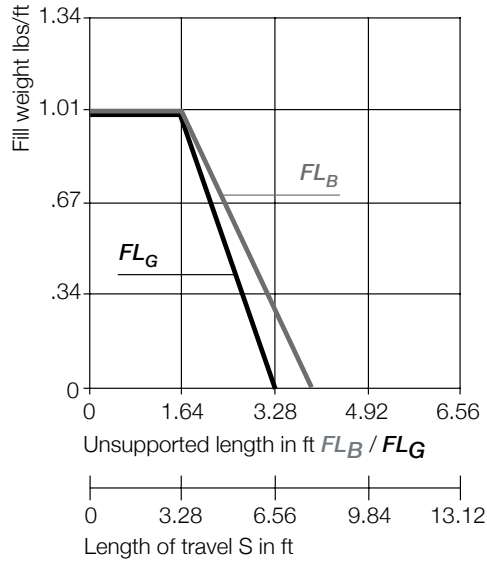
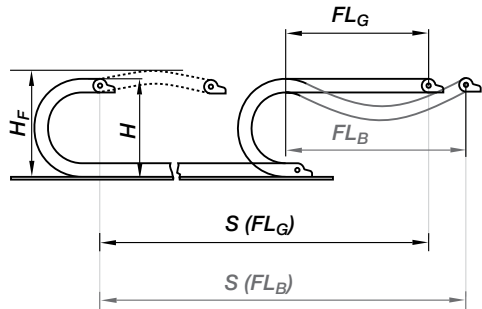
PDF: [igus.com/e-chain-pdfs](https://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](https://igus.com/e-chains)



# e-chain system® E2 Mini Series F17 Installation Dimensions

## Short travel, unsupported length

- $FL_B$  = unsupported with permitted sag
  - $FL_G$  = unsupported with straight upper run
- Further information ► Design, Chapter 1



Pitch per link = 1.20" (30.5 mm)  
 Links per ft (m) = 10.06 (33)  
 For center mount applications:  
 Chain length =  $\frac{S}{2} + K$

The required clearance height:  $H_F = H + 1.18$  in. (30 mm) (with .34 lbs/ft (0.5 kg/m) fill weight).  
 Please consult igus® if space is particularly restricted.

R	1.89 (048)	2.95 (075)
H	5.31 (135)	7.44 (189)
D	4.45 (113)	5.51 (140)
K	8.46 (215)	11.81 (300)

Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s <sup>2</sup> (10 m/s <sup>2</sup> )
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

### Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

### Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- $H_F$  = Required clearance height



### Technical Data



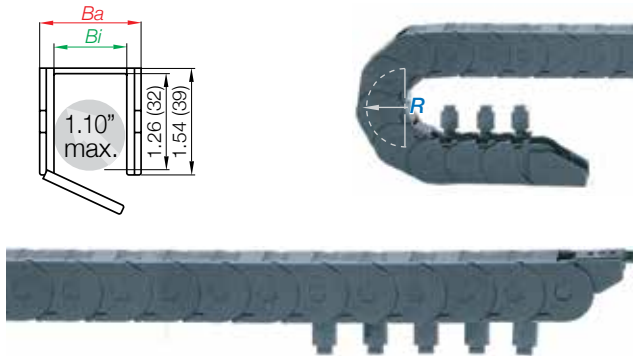
Details of material properties

► Chapter 1

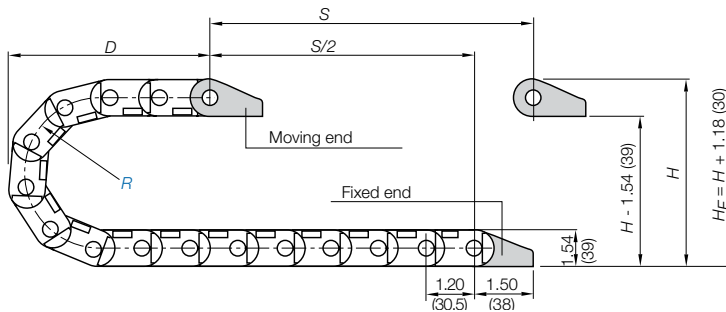
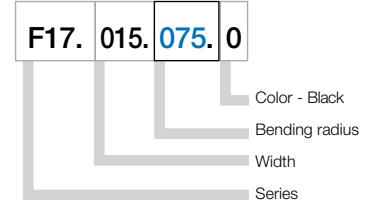




Series F17 - Openable along the inner radius from one side with film-hinge



Part Number Structure



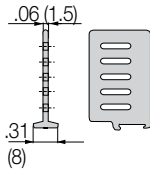
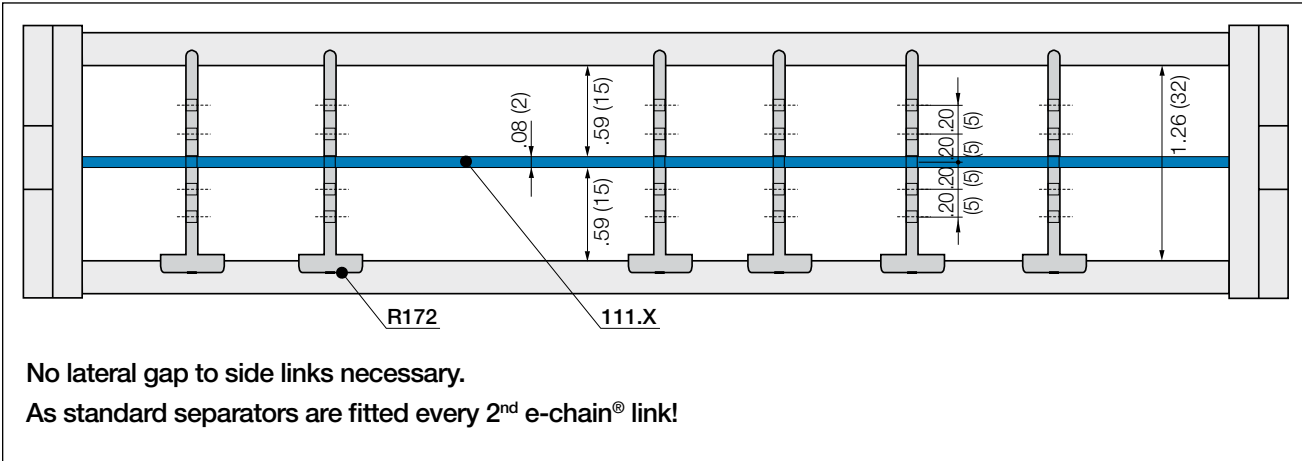
Supplement part number with required radius. Example: F17.015.  .0  
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

For e-chain® type	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
F17.015. <input type="text" value=""/> .0	.59 (15)	1.02 (26)	≈ 0.35 (0.52)

Choose from the radii below for all of the above sizes  
Radius (mm) Example: F17.015.  .0

	<input type="text" value="048**"/>	<input type="text" value="075"/>
R	1.89 (048)	2.95 (075)
H	5.31 (135)	7.44 (189)
D	4.45 (113)	5.51 (140)
K	8.46 (215)	11.81 (300)

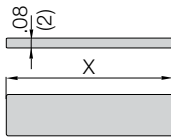
0=Standard color black. For other colors see Chapter 1



**Slotted separator**

Unassembled	<b>Part No. R171</b>
Assembled	<b>Part No. R172</b>

- **Slotted separator R171**  
is used when vertical separation is required. The slot allows basic vertical/horizontal shelving arrangements.



**Full width shelf, for all widths**

Unassembled	<b>Part No. 110-15</b>
Assembled	<b>Part No. 111-15</b>

- **Full width shelf 110-15**  
this option makes sense in applications with many thin cables with similar diameters. For full-width separation

**Full-width shelves**  
Width = X [mm]

Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.59 (015)	<b>110-15</b>	<b>111-15</b>

PDF: [igus.com/e-chain-pdfs](http://igus.com/e-chain-pdfs)  
Product information: [igus.com/e-chains](http://igus.com/e-chains)



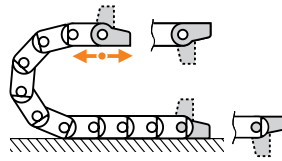


Standard

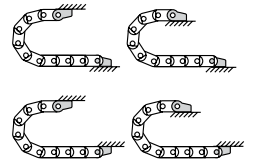
Option: locking

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- With or without strain relief tiewrap plates

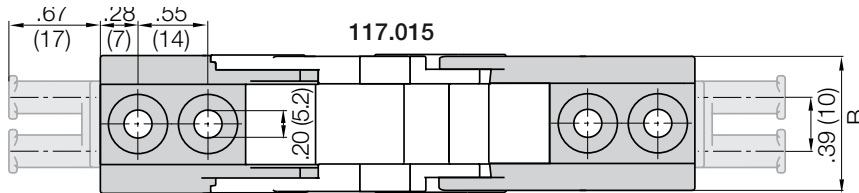
Moving end with bore  
117...1P(Z)



Fixed end with pin  
117...2P(Z)



Possible installation configurations -



For Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Number of Teeth	Dimension A		Dimensions B	
				in.	(mm)	in.	(mm)
F17.015	117.015.12PZ	117.015.12P	2	—	—	1.09	(27.7)

Full set, for both ends:

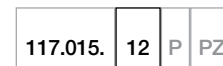
117.015. 12 PZ Full set, each part with pin/bore + tiewrap plate

Single-part order:

117.015. 1 PZ Mounting bracket with bore + tiewrap plate

117.015. 2 PZ Mounting bracket with pin + tiewrap plate

Part Number Structure



- With tiewrap plate
- Without tiewrap plate
- Complete Set
- 12 = Locking**
- Mounting brackets for selected chain type